

TS 4200

seemann

J7E CIRCUIT DESCRIPTION:

A) TUNER

1) Operation of the tuner:

The tuner converts the incoming frequencies from the LNB (950 to 2050 MHz) to the 2nd IF of 479.5 MHz. It filters the incoming wave form to 27 MHz bandwidth, through the contained SAW filter.

This unit also incorporates a PLL demodulator and frequency synthesized circuits which is controlled by the microprocessor via IIC bus.

2) Description of terminals:

pin (1) : Power supply terminal for the LNB A.

pin (2) : Power supply terminal for the LNB B.

pin (5) : Base band output.

It is connected to the video and audio circuits.

pin (9) : AGC output.

The signal level voltage varies with input signal level. This is used for auto tuning feedback to the microprocessor. As the input level goes higher, its voltage goes down. The voltage changes from 4.4 V to 0.6 V.

pin (12) : +5V power supply.

Power supply terminal for internal digital circuits and signal processing circuits.

pin (14) : +25V power supply.

Power supply terminal for frequency synthesized circuit.

pin (15) : IIC bus address selection terminal

This terminal is used for the address selection. It is short to ground in this unit.

pin (17) : IIC bus clock from microprocessor.

pin (18) : IIC bus data from microprocessor.

B) VIDEO CIRCUIT

The video circuit consists of the following parts:

1) C/Ku switching

The base band output of the tuner is provided to the amplifier which has non-inverted and inverted output (Q108). The two signals are selected by CPU via D101, D102 and Q109.

2) Base band amplifier

The amplifier makes the level of base band output 2 Vp-p and drive into 75 Ohm load.

3) De-emphasis circuit

The high frequency section of the tuner base band output is emphasized. The de-emphasis circuit makes the frequency response of this signal flat. It consists of a series resistor R141 and R142, C121 which connect to ground.

The PAL/NTSC de-emphasis circuit are different, they are selected by CPU via Q113, Q114.

4) Lowpass filter

The lowpass filter rejects the audio sub carriers locating upper frequency of the video band. The cutoff frequency of the PAL is 5.8 MHz, and the cutoff frequency of the NTSC filter is 4.8 MHz (option).

5) PAL/NTSC switching(option)

The de-emphasis circuits and lowpass filters with PAL and NTSC are selected by CPU via Q116, D110, D111.

5) DNR circuit

The stereo audio signal will pass through a DNR circuit, this circuit can change the amplifier bandwidth to match the input signal bandwidth, if the frequency of input signal is high then the bandwidth will be changed to wider, if the frequency is low then the bandwidth will become narrow. The final result is a noise reduction effect, it is done by the IC U302.

6) Audio source selection circuit

The CPU can select the stereo pair signal or the mono audio or one of the stereo pair through a analog switch IC 305. The outputs are provided to the output buffer amplifier which has 6dB gain.

The another analog switch U203 is used to select the different audio source and provide to the SCART and RCA jack similar to the video selector.

D) Microprocessor section

1) Reset circuit

The reset circuit Q407, Q406 can generate a sharp reset pulse when the +5V supply is lower than 4.5 V.

2) 4 MHz oscillator

The CPU (U401) and Audio tuning IC (U301) share the 4 MHz crystal oscillator the a emitter follower Q408. It is used to generate a timer for the CPU and a reference frequency for the audio tuning PLL.

3) EEPROM channel memory

U402 is a EEPROM which is used to memories the program setup and the global setting.

4) IR receiver and LED display

The IR signal is received by a receive module IR701, it change the IR signal to a serial 5 V pulse and provided to the CPU.

The LED display works as a scan mode operation. The three transistor Q701, Q702, Q703 is used to control the three 7-segments LED on and off.

5) LNB power control and band control circuit

There is a short circuit protection circuit for the LNB power supply, CPU monitor the LNB through a zener diode Z405 and a resistor R420. When the LNB power supply is lower than 12.5V, CPU will switch off the LNB power via J403 pin 2 to protect the power supply circuit. The LNB band control is done by a 22 KHz pulse generator, The 22 KHz tone is generated from Q411 and Q412, transistor Q413, Q414, Q415 drive that 22 KHz tone into the LNB supply line.

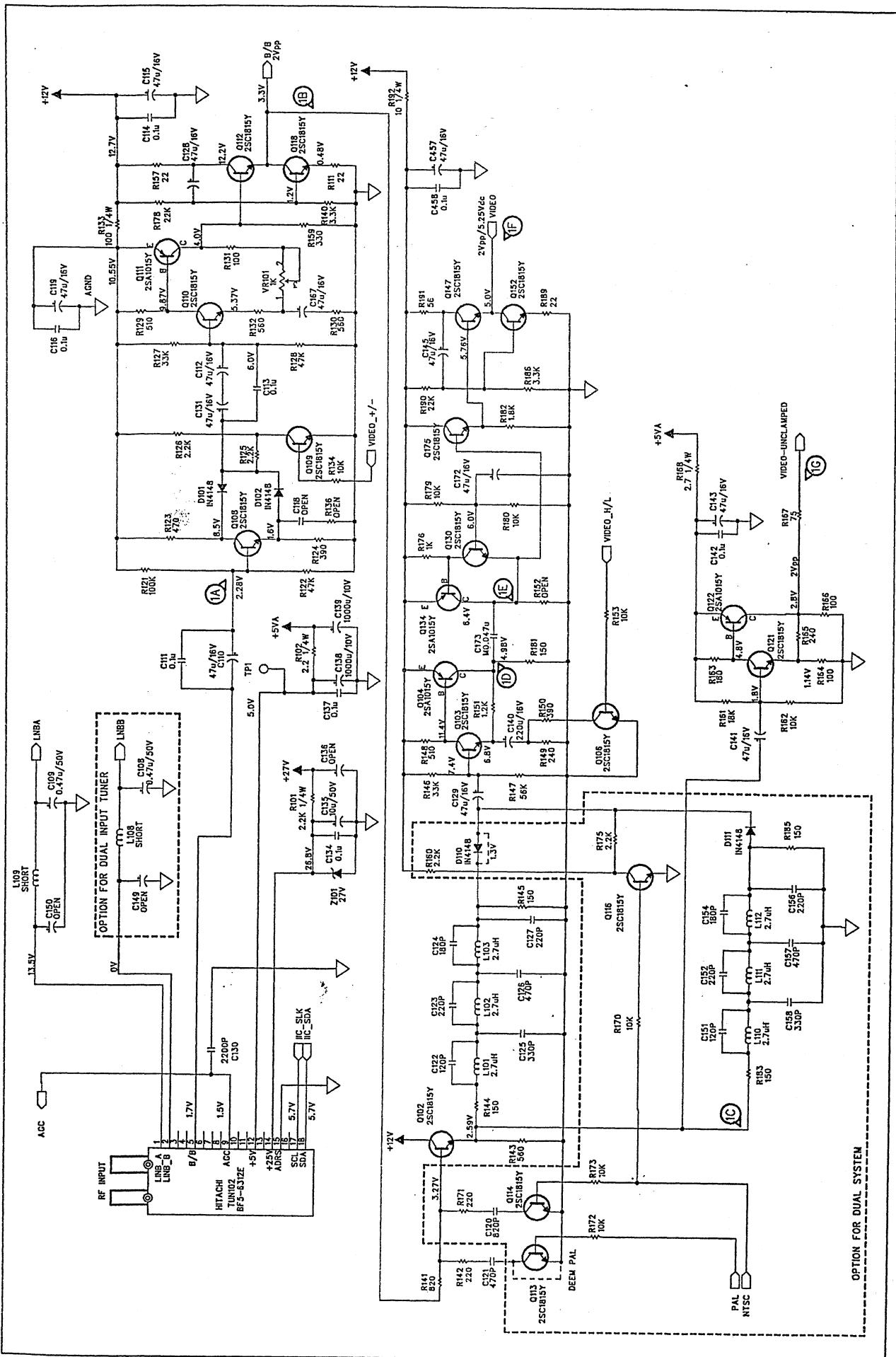
E) POWER SUPPLY CIRCUIT

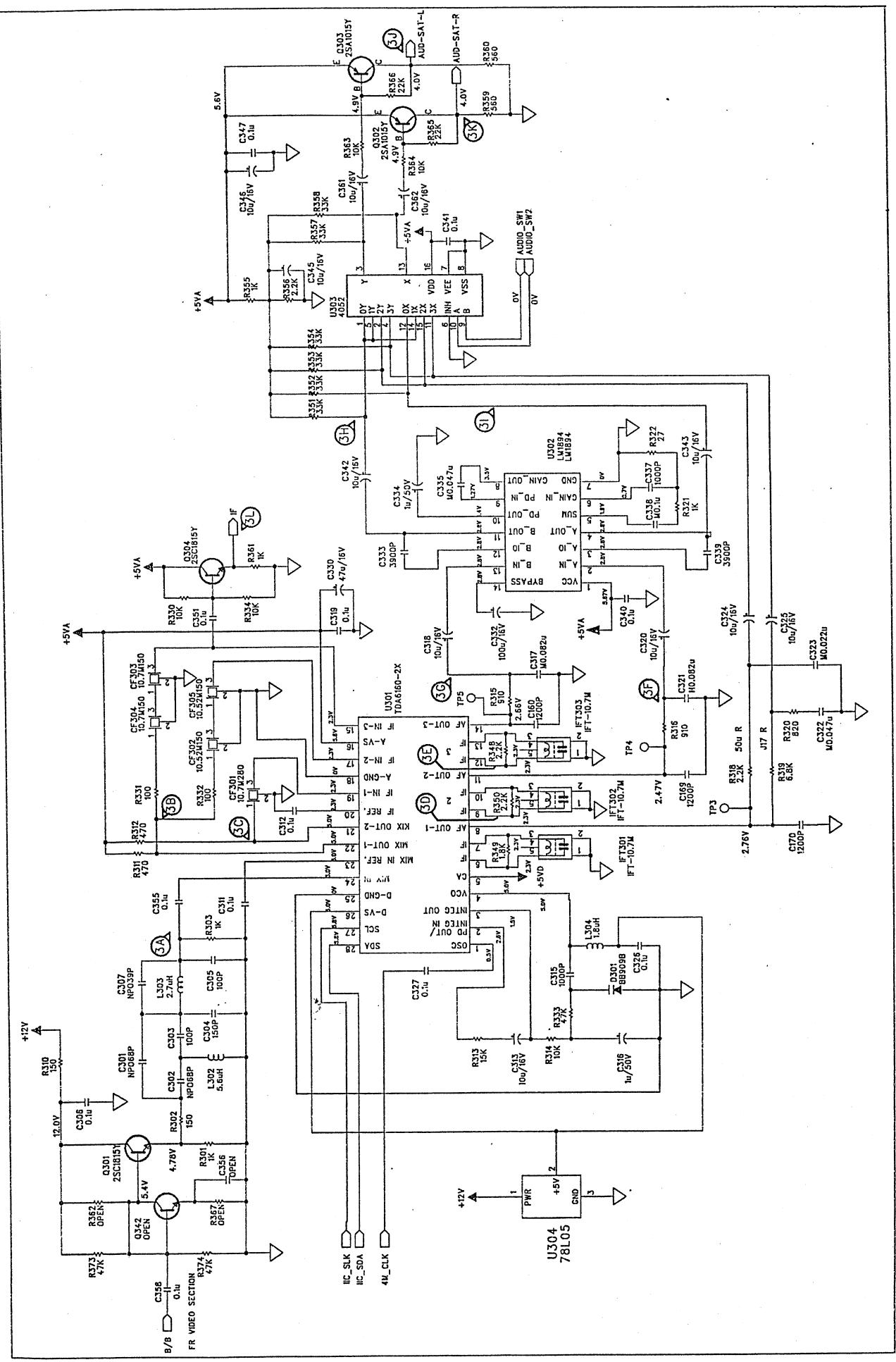
1) PWM controller

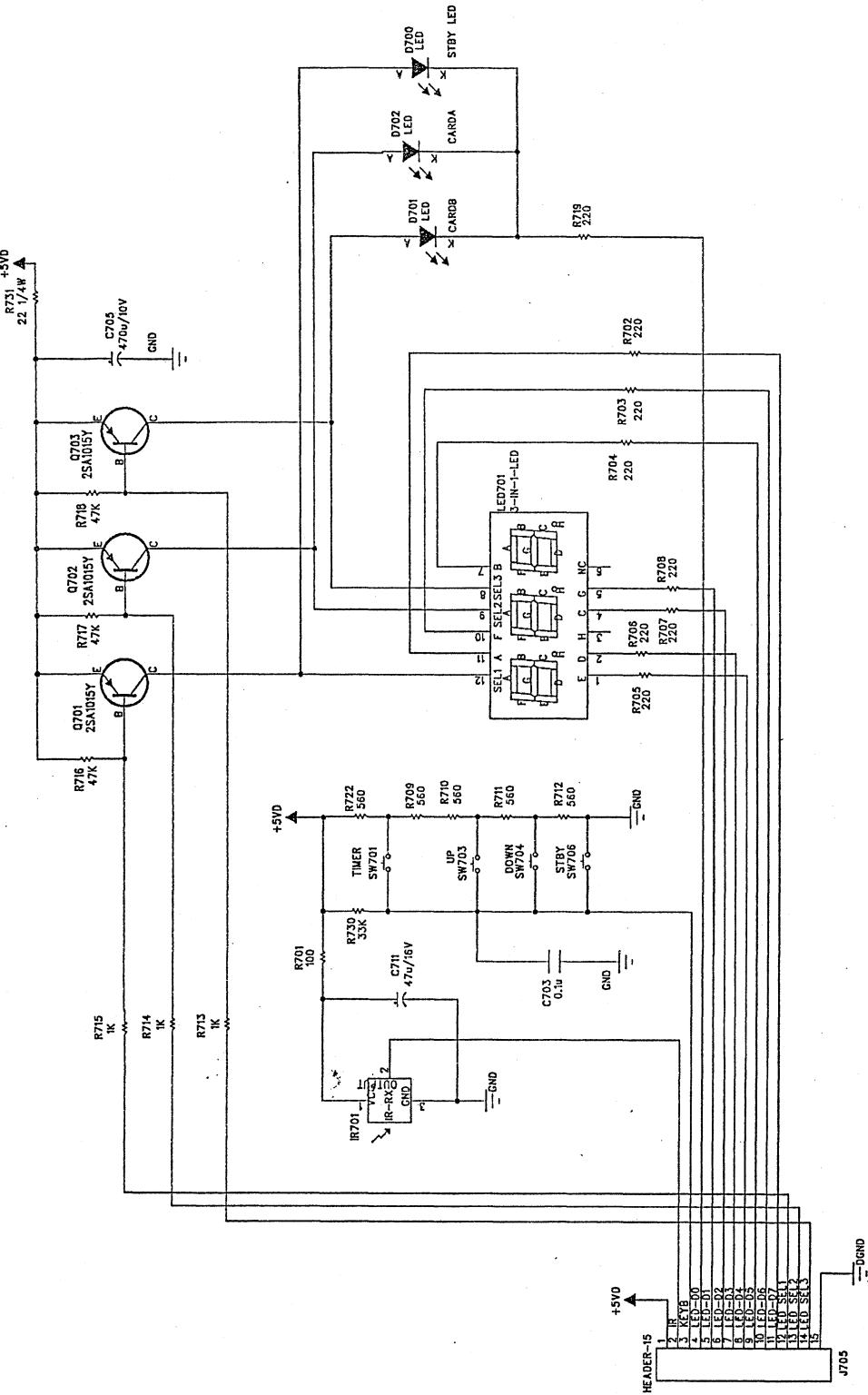
The switch mode power supply is running at 60 KHz, PWM controller U801 monitor the +5V output voltage through a voltage reference IC U803, and a opto coupler U802, it change the switching pulse width which drive base of the switching transistor Q801 to control the output voltage.

2) 13/17V 2nd converter

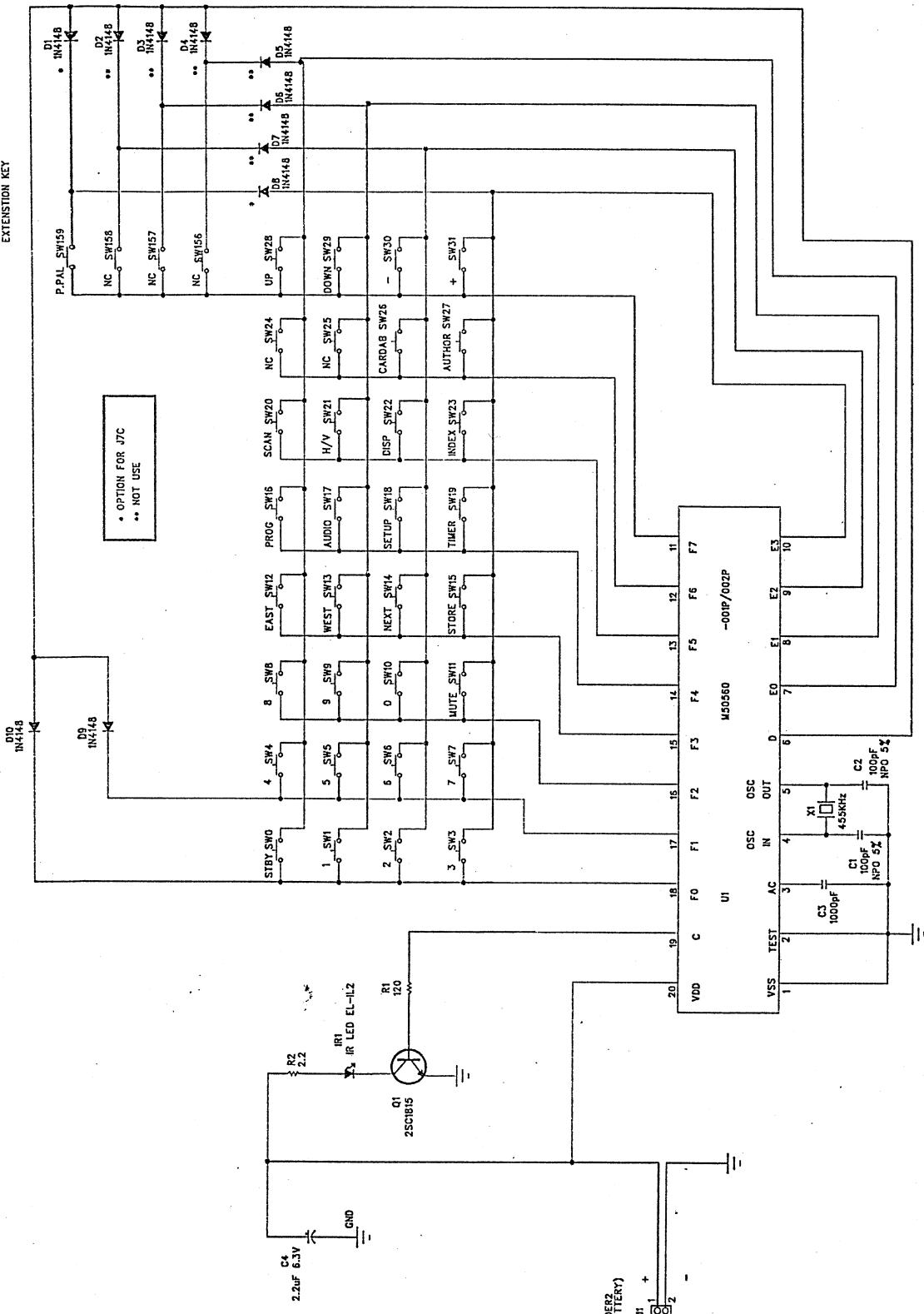
A step down converter consists of Q802, L802, D809 and C816 is used to generate a 13 or 17 V dc power supply. 13V or 17V output is controlled through J802 pin 6. This part of circuit can be switched off by the CPU via J802 pin 2.

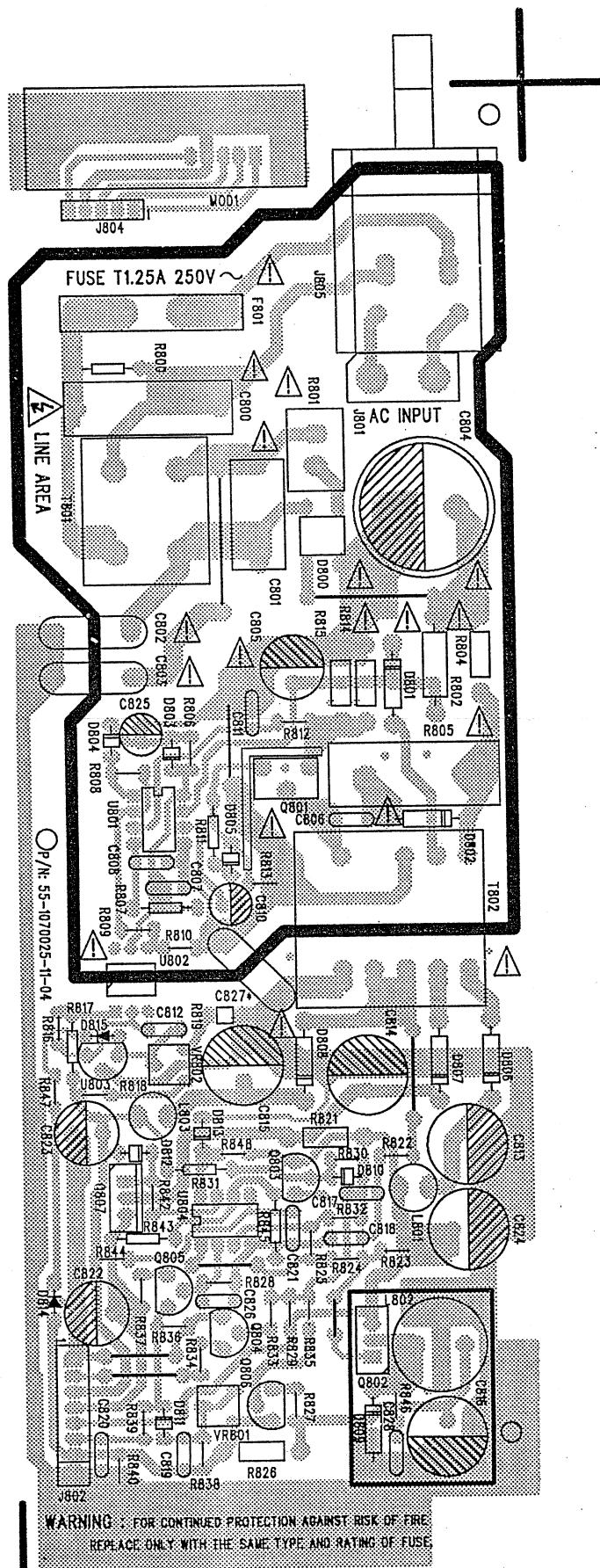




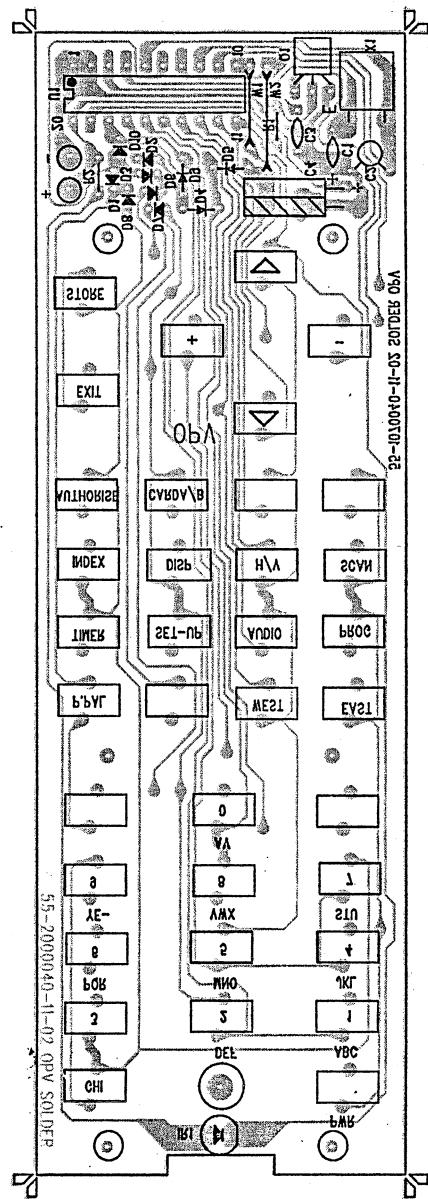


EXTENSION KEY





**WARNING : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE
REPLACE ONLY WITH THE SAME TYPE AND RATING OF FUSE**



ALIGNMENT PROCEDURE

I) General Adjustments:

- 1) +5V adjustment
- 2) +17adjustment
- 3) OSD 17.734475 MHz adjustment
- 4) OSD position adjustment
- 5) Video level adjustment
- 6) Audio IF adjustment

II) Recommend equipment:

- 1) Digital voltage meter
- 2) PAL vector scope
- 3) PAL, NTSC color TV
- 4) Audio IF 10.7MHz, 10.52MHz sweep generator
- 5) Wide screen monitor
- 6) 60MHz oscilloscope

III) Alignment procedure

1) +5V adjustment:

- a) Power on the unit
- b) Measure tuner pin 12 with the DVM
- c) Adjust power supply board VR802 to get a +5 +/- 0.05V reading

2) +17V adjustment:

- a) Power on the unit
- b) Measure tuner F plug output voltage with DVM
- c) Set the LNB BAND to high
- d) Set the polarization to both HOR and VER
- e) Adjust power supply board VR801 to get HOR :+17V +/- 0.5V, VER : +13V +/- 0.5V

3) OSD 17.734475 MHz adjustment

- a) Power on the unit
- b) Connect the vector scope to the scart TV video output pin 19
- c) Adjust VC202 until the vector display stop rotate
and the PAL LED indicator is on

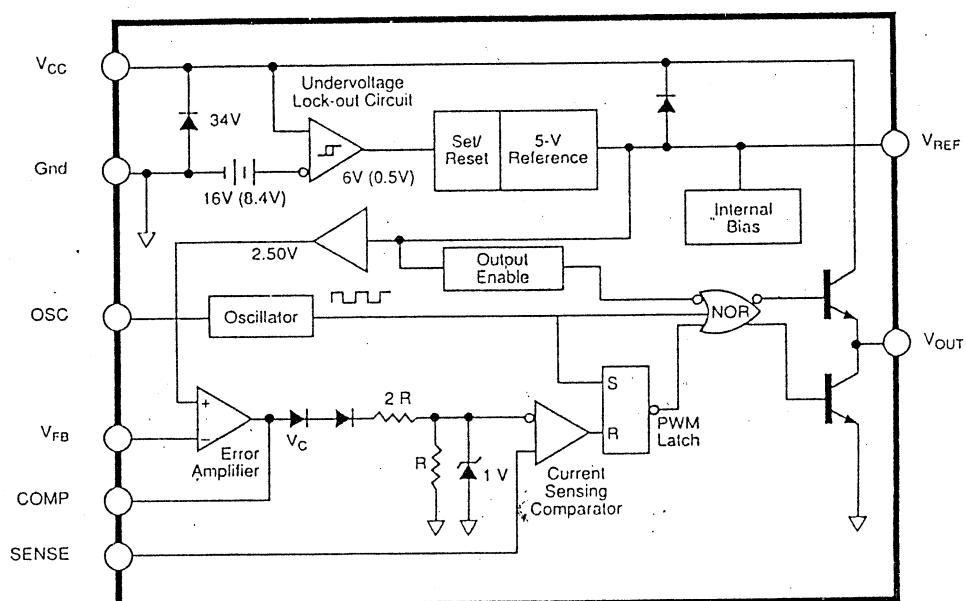
4) OSD position adjustment

- a) power on the unit
- b) Connect a color TV monitor to the scart TV video output pin 19
- c) Press remote control "AUDIO" key to switch on Audio menu
- d) Adjust VC201 to align the OSD center position

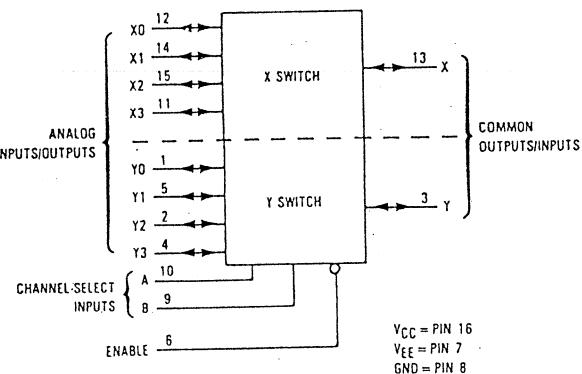
5) Video level adjustment

- a) Power on the unit
- b) Connect a satellite IF signal (16MHz dev, PAL, positive)
- c) Select a pre-set channel (video high, positive)
- d) Connect a oscilloscope to the scart TV video output pin 19
- e) Adjust to a 2Vp-p video level (75% color bar)

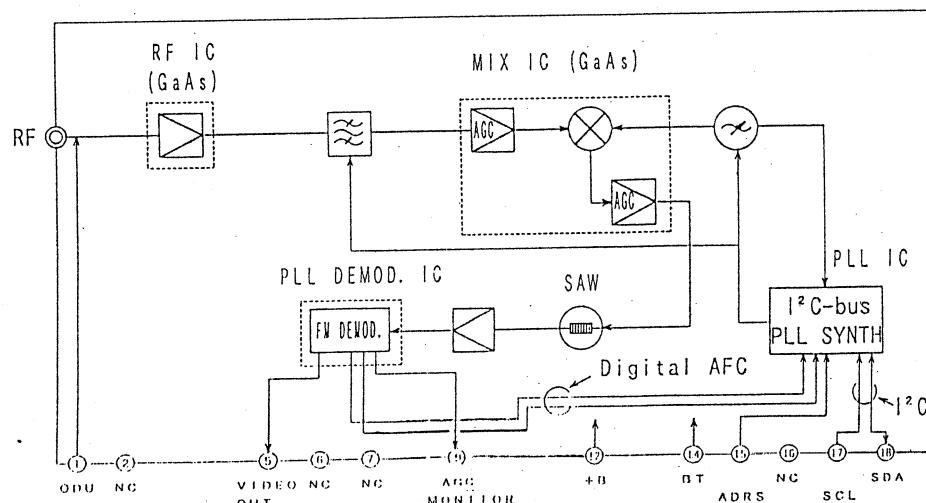
BLOCK DIAGRAM



CS3842A

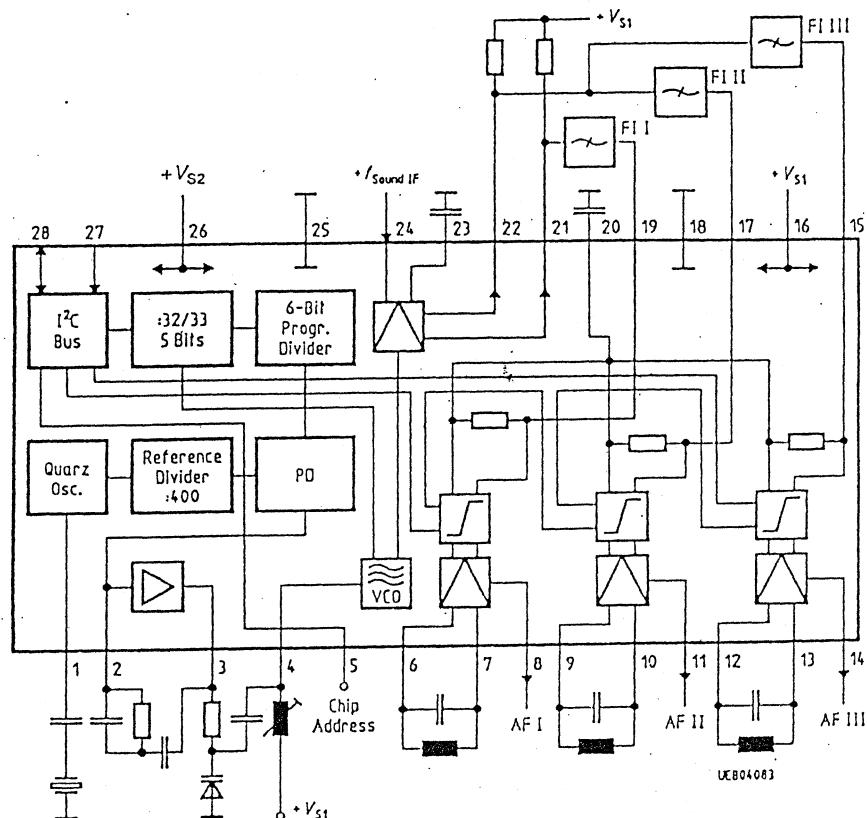


CD4052

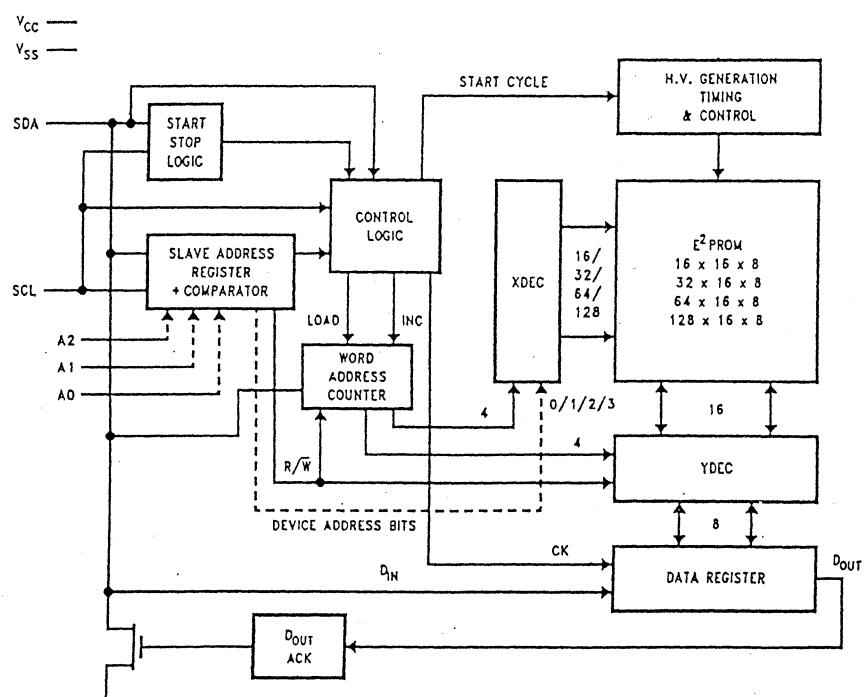


TUNER BF5-6312E

BLOCK DIAGRAM



TDA6160-2X



NM24C16

B) VIDEO CIRCUIT

(1) No scart TV video output

Connect the tuner IF input, and Select a correct channel to receive a video signal.

Check the +5V supply at U202 pin 7, pin 20

Check the +12V supply at U201 pin 7, both side of R133, R192.

(a) Check blue background and OSD

No good, check U202 and IIC bus

OK, do the next step.

(b) Check scart VCR pin 19 and U201 pin 1 video signal 2Vp-p.

OK, check HOR(15.625KHz at PAL), VER(50 Hz at PAL)sync. signal at U202 pin 18, 19

No good, do the next.

(c) Check scart DECODER pin 19 and Q147 emitter video signal 2Vp-p.

OK, check U201

No good, do the next

(d) Check Q104 collector unclamp video signal 2Vp-p.

OK, check C173, Q134, Q130, Q175, Q147.

No good, do the next

(e) Check scart DECODER pin 12 and Q112 emitter base band signal 2Vp-p.

OK, check R141, Q102, PAL/NTSC lowpass filter, Q103, Q104.

No good, do the next.

(f) Check tuner pin 5 base band signal 1Vp-p.

OK, Check Q108, D101, D102, Q109, Q110, Q111.

No good, Check tuner pin 17&18 IIC bus, tuner.

(g) Check any open or short circuit on the main PCB.

(2) No scart DECODER pin 10 de-emphasized base band output

(a) Check Q121, Q122.

(b) Follow the instructions (1) start from (d).

(3) No VCR or DECODER video loop through, check U201 and any open or short circuit.

(4) No modulator output.

(a) Check J201 pin 3, 5 power supply (+5Vdc) at power on mode.

No good, Check Q213, and CPU control circuit.

OK, do the next.

(b) Check J201 pin 1 video output 1Vp-p.

No good, Check Video circuit follow the instruction (1).

OK, Replace the modulator.

D) CPU CONTROL CIRCUIT

(1) Front panel control no response.

- (a) Check +5V supply of CPU pin 32.
- (b) Check CPU pin 5 voltage, when the on button is pressed, it should be 0 Vdc.
- (c) Check the reset pin 45, 5.8Vdc
- (d) Check crystal oscillator XL401, 4MHz
- (e) Check any open or short circuit of the CPU part.

(2) Remote control no response.

- (a) Check +5V supply of the IR receiver IR701.
- (b) Check the IR pulse input of the CPU pin 4.
- (c) following the instruction (1) start at a).

(3) Without signal level meter or Auto scan fail.

- (a) Check tuner AGC output pin 9, the voltage will change higher when you disconnect the IF input. if fail, check or replace tuner.
- (b) Check CPU AGC input pin 7 on the same way as (a), if fail, check the inter connection between tuner and CPU.
- (c) Check CPU AFC input pin 6, the voltage will change between 0 and 5 V during auto-scan. if fail check U101A.
- (d) Check any open or short circuit on the CPU part.

(4) LED display abnormal.

- (a) Check Q701, 702, 703.
- (b) Check or replace LED module LED701.

(5) LNB band switch no action.

- (a) Switch LNB band to high, check Q412 emitter (22KHz)
- (b) Check Q413, D403

J7E TESTING PROCEDURE

I) J7E testing

- 1) Power supply board testing
- 2) Remote control testing
- 3) Front panel board testing
- 4) Main chassis testing

II) J7E testing equipment

- 1) 60MHz oscilloscope
- 2) Satellite IF 950-2050 signal with selectable audio pair
- 3) TV PAL NTSC pattern generator with RF output from 47MHz to 854MHz
- 4) Multisystem color TV with scart input
- 5) RF step attenuator 950 - 2050MHz
- 6) Digital voltage meter
- 7) Vector scope

III) J7E testing procedure

1) Power supply board testing

A) Output voltage range testing:

a) Connect the DVM to power supply board J802

b) Connect a resistor load to J802

| | | |
|-------|---------|-----|
| pin 3 | 5.1 ohm | 10W |
| pin 4 | 18 ohm | 10W |
| pin 5 | 220 ohm | 10W |
| pin 7 | 56 ohm | 10W |

c) Check the output reading should be:

| Pin No. of J802 | Pin name | output/conditions | | |
|-----------------|--------------|-------------------|-----------------|-----------------|
| pin 1 | GND | 0V | 0V | 0V |
| pin 2 | Power on/off | high | low | low |
| pin 3 | +5V | +5.7V +/- 0.1V | +5.7V +/- 0.1V | +5.7V +/- 0.1V |
| pin 4 | +12V | +12.7V +/- 0.2V | +12.7V +/- 0.2V | +12.7V +/- 0.2V |
| pin 5 | +33V | +33V +/- 0.5V | +33V +/- 0.5V | +33V +/- 0.5V |
| pin 6 | LNB control | low | low | high |
| pin 7 | +13/17V | 0V | +/- 0.5V | +13.7V +/- 0.1V |
| pin 8 | NC | 0V | 0V | 0V |

D) Audio output testing

- Do the same setup as A) & B)
- Select a pre-set channel with audio setup: (ST, 8.10, 8.28, N, P1)
- Check all audio output level >500mV and distortion <1%
on 10 kohm load
Scart VCR pin 1, 3
Scart TV pin 1, 3
Scart Decoder pin 1, 3
RCA jack output L, R

E) Audio switch, tune range and dc emphasis testing

- Do the same setup as A) & B)
- Change audio setup and check output level

| Input signal | Setting | Output signal | Output level |
|---------------------------------|-------------------|--------------------|--------------|
| 7.38, 7.56 / 1K, 1K, +/-50KHz | (M, 7.38, N, P1) | L=1KHz, R=1KHz | mV |
| 5.80, 9.00 / 1K, 8KHz +/- 85KHz | (M, 5.80, W, 50) | L=3.2KHz, R=3.2KHz | mV |
| 5.80, 9.00 / 1K, 8KHz +/- 85KHz | (M, 9.00, W, J17) | L=8KHz, R=8KHz | mV |

F) Scart function testing

- Check scart TV pin 8

Stand-by mode, low = 0V
Operation mode, high=+12V +/- 1V, on 10 Kohm load

- Check scart VCR pin 8

Both AV will be loop though in the VCR loop though mode
input = high, VCR loop though mode
input = low, exit VCR loop though mode

- Check scart decoder pin 8

Decoder loop though (both AV, V only, A only)
input = high, Decoder loop though mode
input = low, exit Decoder loop though mode
notice: If decoder type set to V only, then only the video will be loop though
If decoder type set to both AV, the both AV will be loop though

G) Modulator testing

- Switch to stand-by mode
- Connect a TV pattern gen. RF output to ANT input socket
- Connect a Color TV to TV output socket
- Check three point of RF loop though
47MHz, 474MHz, 854MHz
- Switch to operation mode
- Check the test signal by switch on the test switch
- Switch off test sw., Check modulated output on TV
- Switch to stand-by mode again, the modulated output will be disappeared

H) AGC and auto-search testing

- Connect a IF input signal to tuner though a step attenuator
- Switch unit into signal level meter mode by remote control
- Use step attenuator to set the signal level
- Check the signal level meter movement
- Switch to auto-search mode
- Check auto-search up and down by the +/- keys

| ITEM | LOCATION | LEVEL | A | SC | PART NO. | PART DESC. | MANUFACT. | QTY | UNIT |
|------|-------------|-------|---|----|------------------|---|----------------------|-----|------|
| 1 | U004 | | X | A | 27-3000501-07-04 | I.C. REG LM78L05 5V/0.1A TO-92 LM78L05ACE | NS | 1 | |
| 2 | | 3 | P | | 10-0070062-71-20 | CHANNEL KNOB J7E ABS SPRAY BLK R.2.0 (UP/DOWN) | | 1 | |
| 3 | | 3 | P | | 02-720001-00-00 | BACK LABEL J7E BLACK (70 X 30mm) | | 1 | |
| 4 | | 3 | X | P | 13-0301004-04-00 | SELF TAPING SCREW V3 X 10 KH TYPE "A" BLK PLT | TEO CHEOW SENG | 1 | |
| 5 | | 3 | P | | 12-0070255-70-00 | CUT SHEET J7E PVC 54 X 90mm BLK BLANK | | 1 | |
| 6 | | 3 | P | | 10-0070024-01-00 | BOTTOM CABINET J7E ABS BLK R.0.0 | | 1 | |
| 7 | | 3 | X | P | 14-0300600-02-00 | MACHINE SCREW M3 X 6 PH NI PLT | | 1 | |
| 8 | | 3 | P | | 10-0070041-01-10 | FRONT LENS J7E ACRYLIC GREEN R.1.0 | TEO CHEOW SENG/MELCO | 1 | |
| 9 | | 3 | X | P | 13-0300803-04-00 | SELF TAPING SCREW V3 X 8 BH TYPE "A" BLK PLT | TEO CHEOW SENG | 1 | |
| 10 | | 3 | P | | 17-1181270-40-21 | BUSHING 11.8 X 12.7mm 1.0mm THK BLK NYLON | | 1 | |
| 11 | | 3 | P | | 55-1070040-31-04 | PCB REMOTE BOARD J7 CF FR2 1.6mm R.1.1 | | 1 | |
| 12 | | 3 | | | 80-0000707-00-00 | PCB ASSY J7E REV.0 MAIN BOARD | | 1 | |
| 13 | | 3 | P | | 17-0981280-04-22 | FOOTPAD Y12.8 X 3.5 mm BLK RUBBER | | 1 | |
| 14 | | 3 | P | | 10-0070072-71-10 | TIMER KNOB J7E ABS SPRAY BLK R.1.0 | | 1 | |
| 15 | | 3 | P | | 17-0981280-04-22 | FOOTPAD Y12.8 X 3.5 mm BLK RUBBER | | 1 | |
| 16 | | 3 | | | 80-0000707-00-02 | PCB ASSY J7E REV.0 FRNT PANEL BOARD | | 1 | |
| 17 | | 3 | X | P | 36-0245650-00-52 | STRANDED WIRE #24 L=65mm BLACK TIN LEAD UL1007 | STAR WORLD | 1 | |
| 18 | | 3 | P | | 17-0981280-04-22 | FOOTPAD Y12.8 X 3.5 mm BLK RUBBER | | 1 | |
| 19 | | 3 | X | P | 36-0240650-00-52 | STRANDED WIRE #24 L=65mm RED TIN LEAD UL1007 | STAR WORLD | 1 | |
| 20 | | 3 | X | P | 13-0300803-04-00 | SELF TAPING SCREW V3 X 8 BH TYPE "A" BLK PLT | TEO CHEOW SENG | 1 | |
| 21 | | 3 | P | | 17-0981280-04-22 | FOOTPAD Y12.8 X 3.5 mm BLK RUBBER | | 1 | |
| 22 | | 3 | P | | 10-0070082-71-10 | STANDBY KNOB J7E ABS SPRAY BLK R.1.0 | | 1 | |
| 23 | | 3 | P | | 10-0070030-71-10 | FRONT PANEL J7E ABS SPRAY BLK R.1.0 | | 1 | |
| 24 | | 3 | X | P | 13-0300803-04-00 | SELF TAPING SCREW V3 X 8 BH TYPE "A" BLK PLT | TEO CHEOW SENG | 1 | |
| 25 | | 3 | | | 80-0000707-00-01 | PCB ASSY J7E REV.0 POWER SUPPLY BOARD | | 1 | |
| 26 | | 3 | P | | 10-0070057-71-00 | BLANK PLATE J7E ABS SPRAY BLK R.0.0 | | 1 | |
| 27 | | 3 | X | P | 13-0301004-04-00 | SELF TAPING SCREW V3 X 10 KH TYPE "A" BLK PLT | TEO CHEOW SENG | 1 | |
| 28 | BTM CABINET | 3 | X | P | 13-0301004-04-00 | SELF TAPING SCREW V3 X 10 KH TYPE "A" BLK PLT | TEO CHEOW SENG | 1 | |
| 29 | C1 | 3 | X | P | 22-1101150-01-10 | CAP CER CCU08 100pf 50V 10% NPO RAD ST5 BULK CCU08NPO101KL | GUIDING | 1 | |
| 30 | C1 | 3 | X | A | 22-1101150-01-24 | CAP CER TR 100pf 50V ±10% NPO RAD ST2.5 BULK TCNP0100K502 | BIL | 1 | |
| 31 | C2 | 3 | X | P | 22-1101150-01-10 | CAP CER CCU08 100pf 50V 10% NPO RAD ST5 BULK CCU08NPO101KL | GUIDING | 1 | |
| 32 | C2 | 3 | X | A | 22-1101150-01-24 | CAP CER TR 100pf 50V ±10% NPO RAD ST2.5 BULK TCNP0100K502 | BIL | 1 | |
| 33 | C3 | 3 | X | P | 22-1102150-30-11 | CAP CER CLK08 1000pf 10% 50V Y5E RAD ST5 BULK CLK08Y5E102KL15AE | GUIDING | 1 | |
| 34 | C3 | 3 | X | A | 22-1102150-09-01 | CAP CER CLK08 1000pf 10% 50V Y5E RAD ST5 BULK CLK08Y5E102KL15AE | GUIDING | 1 | |
| 35 | C3 | 3 | X | A | 22-1102150-17-23 | CAP CER-H1K 1000pf 50V ±10% B RAD ST2.5 BULK H1KB102K502 | BIL | 1 | |
| 36 | C4 | 3 | X | P | 22-3470022-00-08 | CAP ELEC SM 47UF 16V ±20% 85°C YER BULK | YEC | 1 | |
| 37 | D10 | 3 | X | A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4118 | N.S | 1 | |
| 38 | D10 | 3 | X | P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4118 | ITT | 1 | |
| 39 | D10 | 3 | X | P | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4118 | KEL | 1 | |
| 40 | D9 | 3 | X | A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4118 | N.S | 1 | |
| 41 | D9 | 3 | X | A | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4118 | KEL | 1 | |
| 42 | D9 | 3 | X | P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4118 | ITT | 1 | |
| 43 | FP BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | FP BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | FP BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| 44 | FP CABINET | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | FP CABINET | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | FP CABINET | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | FP CABINET | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | FP CABINET | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| 45 | IR1 | 3 | X | P | 26-1911005-00-00 | IRTX 940nm D5 x10mm BULK EL-1L2 | KODENSHI | 1 | |
| 46 | MAIN BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | MAIN BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | MAIN BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | MAIN BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| 47 | POWER BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | POWER BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | POWER BD | 3 | X | P | 13-0301000-02-00 | SELF TAPING SCREW V3 X 10 PH TYPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| 48 | Q1 | 3 | X | P | 21-0000060-00-01 | XTR S.S BC337 NPN-HFE 250 100M T092 BULK BC337-25 | ITT | 1 | |
| 49 | R1 | 3 | X | P | 23-0121200-00-00 | RES CF 12 OHM 5% 1W AXIAL BULK | ANY | 1 | |
| 50 | R2 | 3 | X | P | 23-022R200-00-00 | RES CF 2.2 OHM 1W 5% BULK AXIAL | ANY | 1 | |
| 51 | RCA JACK | 3 | X | P | 13-0301004-04-00 | SELF TAPING SCREW V3 X 10 KH TYPE "A" BLK PLT | TEO CHEOW SENG | 1 | |
| 52 | TOP CABINET | 3 | X | P | 13-0300803-04-00 | SELF TAPING SCREW V3 X 8 BH TYPE "A" BLK PLT | TEO CHEOW SENG | 1 | |
| 53 | U1 | 3 | X | P | 27-9505600-00-01 | IC RÉMOTÉ 4BIT 33KEY M50560-001P | MITSUBISHI | 1 | |
| 54 | X1 | 3 | X | A | 28-4045100-01-14 | RESONATOR 455KHz 0.3% POE-165B | FUJI CERAMICS | 1 | |
| 55 | X1 | 3 | X | P | 28-4045100-01-03 | RESONATOR 455KHz 2KHz PRF-0455DBSAF | KDS | 1 | |
| 56 | | 2 | X | P | 19-0070014-23-10 | OVERLAY REMOTE J7E LEXAN 4-C 1-ADH R.0.0 BINATONE | FOUNTAIN | 1 | |
| 57 | | 2 | X | P | 37-0020200-00-63 | BATTERY CARBON ZINC AAA 1.5 GR03X | GOLDEN POWER | 1 | |
| 58 | | 2 | P | | 10-0070154-01-00 | REMOTE CABINET BOTTOM J7E ABS R.0.0 | | 1 | |
| 59 | | 2 | P | | 11-0070117-20-00 | BATTERY CONTACT (+) J7E BASS R.0.0 | | 1 | |
| 60 | | 2 | P | | 11-0070127-20-00 | BATTERY CONTACT (-) J7E BASS R.0.0 | | 1 | |
| 61 | | 2 | P | | 11-0070137-20-00 | BATTERY CONTACT (+/-) J7E BASS R.0.0 | | 1 | |
| 62 | | 2 | P | | 10-0070161-01-00 | REMOTE BATTERY DOOR J7E ABS R.0.0 | | 1 | |
| 63 | | 2 | X | P | 12-0070240-70-00 | SPONGE J7E 10 X 20 X 10mm | WING FUNG/TAK LEE | 1 | |
| 64 | | 2 | P | | 18-0070036-12-00 | RUBBER KEY PAD J7E 36KEYS 2-C R.0.0 | | 1 | |
| 65 | | 2 | P | | 85-0000707-00-00 | CHASSIS ASSY J7E REV.0 BOTTOM CASE (ES2000 BINATONE) | | 1 | |
| 66 | | 2 | P | | 10-007013-01-00 | TOP CABINET J7E ABS BLK R.0.0 | | 1 | |
| 67 | | 2 | P | | 10-0070171-03-00 | REMOTE LENS J7E ACRYLIC RED R.0.0 | | 1 | |
| 68 | | 2 | P | | 10-0070143-01-10 | REMOTE CABINET TOP J7E ABS R.1.0 | | 1 | |
| 69 | | 2 | X | P | 37-0020200-00-63 | BATTERY CARBON ZINC AAA 1.5 GR03X | GOLDEN POWER | 1 | |
| 70 | | 2 | P | | 62-700702-30-07 | REMOTE BACK LABEL J7E BLACK (24 X 40mm) | | 1 | |
| 71 | | 2 | | | 80-0000707-00-04 | PCB ASSY J7 REMOTE BD | | 1 | |
| 72 | | 2 | | | 85-0000707-00-01 | CHASSIS ASSY J7E REV.0 FRONT PANEL (ES2000 BINATONE) | TEO CHEOW SENG/MELCO | 1 | |
| 73 | REMOTE BD | 2 | P | | 13-0200600-02-00 | SELF TAPING SCREW V2 X 6 PH TAPE "A" NI PLT | TEO CHEOW SENG | 1 | |
| | REMOTE BD | 2 | P | | 13-0200600-02-00 | SELF TAPING SCREW V2 X 6 PH TAPE "A" NI PLT | TEO CHEOW SENG | 1 | |

| | | | | | | | |
|-----|------|---|-----|------------------|--|---------|---|
| 164 | C141 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47μF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511XCX | ELITE | 1 |
| 165 | C141 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 166 | C141 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47μF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 167 | C142 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1μF 20% Z5U RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 168 | C142 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1μF 50V ±80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 169 | C142 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1μF ±80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 170 | C143 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47μF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 171 | C143 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 172 | C143 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47μF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511XCX | ELITE | 1 |
| 173 | C145 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 174 | C145 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47μF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 175 | C145 | 4 | X P | 22-3470022-00-02 | CAP ELEC SM 47μF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511XCX | ELITE | 1 |
| 176 | C160 | 4 | X P | 22-1122150-30-13 | CAP CER CKU08 1200pF 10% 50V Y5E RAD ST5 BULK CKU08Y5E12 | GUIDING | 1 |
| 177 | C160 | 4 | X A | 22-1122150-17-23 | CAP CER HK 1200pF 50V ±10% B RAD ST2.5 BULK HKB122K502 | BIL | 1 |
| 178 | C167 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47μF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 179 | C167 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47μF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511XCX | ELITE | 1 |
| 180 | C167 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 181 | C169 | 4 | X A | 22-1122150-17-23 | CAP CER HK 1200pF 50V ±10% B RAD ST2.5 BULK HKB122K502 | BIL | 1 |
| 182 | C169 | 4 | X P | 22-1122150-30-13 | CAP CER CKU08 1200pF 10% 50V Y5E RAD ST5 BULK CKU08Y5E12 | GUIDING | 1 |
| 183 | C170 | 4 | X A | 22-1122150-17-23 | CAP CER HK 1200pF 50V ±10% B RAD ST2.5 BULK HKB122K502 | BIL | 1 |
| 184 | C172 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47μF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 185 | C172 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 186 | C172 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47μF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511XCX | ELITE | 1 |
| 187 | C173 | 4 | X P | 22-4147303-10-10 | CAP MYLAR KT-G 0.047μF 100V 10% RAD ST6.5 BULK | HYOCHUN | 1 |
| 188 | C173 | 4 | X A | 22-4147303-10-17 | CAP MYLAR CQ92M 47nF 100V 10% RAD BULK | DAEHUNG | 1 |
| 189 | C173 | 4 | A | 22-4147301-10-10 | CAP MYLAR KT-G 47nF 50V 5% RAD ST5 BULK KT-G170K50V | HYOCHUN | 1 |
| 190 | C200 | 4 | X P | 22-3221202-00-08 | CAP ELEC SM 220μF 16V 20% VER BULK | YEC | 1 |
| 191 | C200 | 4 | X A | 22-3221202-00-02 | CAP ELEC SM 220μF 16V 20% RAD ST2.5 BULK SM1C221MXNN0812 | ELITE | 1 |
| 192 | C200 | 4 | A | 22-3221202-00-18 | CAP ELEC KR1 16V 20% RAD BULK KR1-16V221MC | KOSHIN | 1 |
| 193 | C202 | 4 | X P | 22-3106052-00-00 | CAP ELEC GS 1μF 50V 20% RAD ST2.5 BULK GS010M050C110XCX | CAPXON | 1 |
| 194 | C203 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1μF ±80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 195 | C203 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1μF 20% Z5U RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 196 | C203 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1μF 50V ±80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 197 | C204 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47μF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511XCX | ELITE | 1 |
| 198 | C204 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 199 | C204 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47μF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 200 | C205 | 4 | X P | 22-3106052-00-00 | CAP ELEC GS 1μF 50V 20% RAD ST2.5 BULK GS010M050C110XCX | CAPXON | 1 |
| 201 | C206 | 4 | X P | 22-3106052-00-00 | CAP ELEC GS 1μF 50V 20% RAD ST2.5 BULK GS010M050C110XCX | CAPXON | 1 |
| 202 | C207 | 4 | X A | 22-3477052-00-18 | CAP ELEC KR1 0.47μF 50V 20% RAD ST5 BULK KR1-50V477MA | KOSHIN | 1 |
| 203 | C207 | 4 | X P | 22-3477052-00-00 | CAP ELEC GS 0.47μF 50V 20% RAD ST 2.5 BULK GSR47M050C110XCX | CAPXON | 1 |
| 204 | C208 | 4 | X P | 22-3470022-00-08 | CAP ELEC KR2 47μF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 205 | C208 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 17μF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511XCX | ELITE | 1 |
| 206 | C210 | 4 | X P | 22-3106052-00-00 | CAP ELEC GS 1μF 50V 20% RAD ST2.5 BULK GS010M050C110XCX | CAPXON | 1 |
| 207 | C213 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47μF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 208 | C213 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 17μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 209 | C213 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 17μF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511XCX | ELITE | 1 |
| 210 | C214 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1μF ±80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 211 | C214 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1μF 20% Z5U RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 212 | C214 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1μF 50V ±80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 213 | C215 | 4 | X A | 22-1050150-01-24 | CAP CER TC 5pF 50V ±10% NPO RAD ST2.5 BULK TCR05R0K502 | BIL | 1 |
| 214 | C215 | 4 | X P | 22-1050150-01-01 | CAP CER CCU05 5pF ± 10% 50V 0.25P NPO RAD ST5 BULK CCU05NP | GUIDING | 1 |
| 215 | C216 | 4 | X A | 22-1050150-01-24 | CAP CER TC 5pF 50V ±10% NPO RAD ST2.5 BULK TCR05R0K602 | BIL | 1 |
| 216 | C216 | 4 | X P | 22-1050150-01-01 | CAP CER CCU05 5pF ± 10% 50V 0.25P NPO RAD ST5 BULK CCU05NP | GUIDING | 1 |
| 217 | C217 | 4 | X P | 22-1330150-01-01 | CAP CER CCU05 53pF 50V ±10% NPO RAD ST2.5 BULK CCU05NP0330KL05AE | GUIDING | 1 |
| 218 | C217 | 4 | X A | 22-1330150-01-24 | CAP CER TC 33pF 50V ±10% NPO RAD ST2.5 BULK TCR0330K502 | BIL | 1 |
| 219 | C218 | 4 | X P | 22-1330150-01-24 | CAP CER CCU05 53pF 50V ±10% NPO RAD ST2.5 BULK CCU05NP0330KL05AE | GUIDING | 1 |
| 220 | C218 | 4 | X A | 22-1330150-01-24 | CAP CER TC 33pF 50V ±10% NPO RAD ST2.5 BULK TCR0330K502 | BIL | 1 |
| 221 | C219 | 4 | X P | 22-3221202-00-08 | CAP ELEC SM 220μF 16V 20% VER BULK | YEC | 1 |
| 222 | C219 | 4 | X A | 22-3221202-00-02 | CAP ELEC SM 220μF 16V 20% RAD ST2.5 BULK SM1C221MXNN0812 | ELITE | 1 |
| 223 | C219 | 4 | A | 22-3221202-00-18 | CAP ELEC KR1 220μF 16V 20% RAD BULK KR1-16V221MC | KOSHIN | 1 |
| 224 | C220 | 4 | X P | 22-3221202-00-08 | CAP ELEC SM 220μF 16V 20% VER BULK | YEC | 1 |
| 225 | C220 | 4 | A | 22-3221202-00-18 | CAP ELEC KR1 220μF 16V ±20% RAD BULK KR1-16V221MC | KOSHIN | 1 |
| 226 | C220 | 4 | X A | 22-3221202-00-02 | CAP ELEC SM 220μF 16V 20% RAD ST2.5 BULK SM1C221MXNN0812 | ELITE | 1 |
| 227 | C221 | 4 | X A | 22-3100222-00-02 | CAP ELEC SM 10μF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 228 | C221 | 4 | X A | 22-3100222-00-19 | CAP ELEC KR2 10μF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 229 | C221 | 4 | X P | 22-3100222-00-08 | CAP ELEC SM 10μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 230 | C222 | 4 | X A | 22-3100222-00-02 | CAP ELEC SM 10μF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 231 | C222 | 4 | X P | 22-3100222-00-08 | CAP ELEC SM 10μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 232 | C222 | 4 | X A | 22-3100222-00-19 | CAP ELEC KR2 10μF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 233 | C223 | 4 | X P | 22-3100222-00-08 | CAP ELEC KR2 10μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 234 | C223 | 4 | X A | 22-3100222-00-02 | CAP ELEC SM 10μF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 235 | C224 | 4 | X A | 22-3100222-00-19 | CAP ELEC KR2 10μF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 236 | C224 | 4 | X A | 22-3100222-00-02 | CAP ELEC SM 10μF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 237 | C224 | 4 | X P | 22-3100222-00-08 | CAP ELEC SM 10μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 238 | C225 | 4 | X A | 22-3100222-00-19 | CAP ELEC KR2 10μF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 239 | C225 | 4 | X P | 22-3100222-00-08 | CAP ELEC SM 10μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 240 | C225 | 4 | X A | 22-3100222-00-02 | CAP ELEC SM 10μF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 241 | C226 | 4 | X A | 22-3100222-00-19 | CAP ELEC KR2 10μF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 242 | C226 | 4 | X P | 22-3100222-00-08 | CAP ELEC SM 10μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 243 | C227 | 4 | X A | 22-3100222-00-02 | CAP ELEC SM 10μF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 244 | C227 | 4 | X A | 22-3100222-00-19 | CAP ELEC KR2 10μF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 245 | C228 | 4 | X A | 22-3100222-00-02 | CAP ELEC SM 10μF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 246 | C228 | 4 | X P | 22-3100222-00-08 | CAP ELEC SM 10μF 16V ±20% 85°C VER BULK | YEC | 1 |
| 247 | C228 | 4 | X A | 22-3100222-00-19 | CAP ELEC KR2 10μF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 248 | C229 | 4 | X A | 22-3100222-00-02 | CAP ELEC SM 10μF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 249 | C229 | 4 | X P | 22-3100222-00-08 | CAP ELEC SM 10μF 16V ±20% 85°C VER BULK | YEC | 1 |

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|-----|------|---|-----|------------------|---|----------|---|
| 336 | C325 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 337 | C325 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MNN0511 | ELITE | 1 |
| 338 | C325 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% VER BULK | YEC | 1 |
| 339 | C326 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 340 | C326 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 341 | C326 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% ZSV/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 342 | C327 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 343 | C327 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 344 | C327 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% ZSV/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 345 | C330 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 346 | C330 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MNN0511CX | ELITE | 1 |
| 347 | C330 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 348 | C332 | 4 | X A | 22-3101022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1C101MNN06311 | ELITE | 1 |
| 349 | C332 | 4 | X P | 22-3101022-00-00 | CAP ELEC GS 10uF 16V 20% RAD ST5 BULK GS101M016E110CXC | CAPXON | 1 |
| 350 | C332 | 4 | X A | 22-3101022-00-18 | CAP ELEC 100uF 16V 20% RAD BULK KR1-16V101MB | KOSHIN | 1 |
| 351 | C332 | 4 | X A | 22-3101022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 352 | C333 | 4 | X P | 22-1392150-30-14 | CAP CER CKU10 3900pF 10% 50V YSE RAD ST5 BULK CKU10Y5E39 | GUIDING | 1 |
| 353 | C333 | 4 | X A | 22-1392150-17-23 | CAP CER/HK 3900pF 50V ±10% B RAD ST5 BULK HKB392K505 | BIL | 1 |
| 354 | C334 | 4 | X P | 22-3100052-00-00 | CAP ELEC GS 1uF 50V 20% RAD ST2.5 BULK GS101M0050C110CXC | CAPXON | 1 |
| 355 | C335 | 4 | X P | 22-4147303-10-10 | CAP MYLAR KT-G 0.047uF 100V 10% RAD ST5 BULK | HYOCHUN | 1 |
| 356 | C335 | 4 | X A | 22-4147301-10-10 | CAP MYLAR KT-G 47uF 50V 5% RAD ST5 BULK KT-G473K50V | HYOCHUN | 1 |
| 357 | C335 | 4 | X A | 22-4147303-10-17 | CAP MYLAR CG02M 47uF 100V 10% RAD BULK | DAE HUNG | 1 |
| 358 | C337 | 4 | X P | 22-1392150-30-11 | CAP CER CKU06 1000pF 10% 50V YSE RAD ST5CKL00Y5E102KL45AE | GUIDING | 1 |
| 359 | C337 | 4 | X A | 22-1102150-17-23 | CAP CER/HK 1000pF 50V ±10% B RAD ST2.5 BULK HKB102K502 | BIL | 1 |
| 360 | C338 | 4 | X A | 22-4110403-10-17 | CAP MYLAR CG02M 0.1uF 100V 10% RAD BULK | DAE HUNG | 1 |
| 361 | C338 | 4 | X P | 22-4110403-10-10 | CAP MYLAR KT-G 0.1uF 100V 10% RAD ST5 BULK KT-G104K100V | HYOCHUN | 1 |
| 362 | C339 | 4 | X P | 22-1392150-30-14 | CAP CER CKU10 3900pF 10% 50V YSE RAD ST5 BULK CKU10Y5E39 | GUIDING | 1 |
| 363 | C339 | 4 | X A | 22-1392150-17-23 | CAP CER/HK 3800pF 50V ±10% B RAD ST5 BULK HKB392K505 | BIL | 1 |
| 364 | C340 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 365 | C340 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 366 | C340 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 367 | C341 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 368 | C341 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 369 | C341 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 370 | C342 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 371 | C342 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 372 | C342 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MNN0511 | ELITE | 1 |
| 373 | C343 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 374 | C343 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 375 | C343 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MNN0511 | ELITE | 1 |
| 376 | C345 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 377 | C345 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 378 | C345 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MNN0511 | ELITE | 1 |
| 379 | C355 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 380 | C355 | 4 | X A | 22-1104160-31-23 | CAP CER/HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 381 | C355 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 382 | C358 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 383 | C358 | 4 | X A | 22-1104160-31-23 | CAP CER/HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 384 | C358 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 385 | C361 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 386 | C361 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 387 | C361 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MNN0511 | ELITE | 1 |
| 388 | C362 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 389 | C362 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MNN0511 | ELITE | 1 |
| 390 | C362 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 391 | C401 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 392 | C401 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 393 | C402 | 4 | X A | 22-1220150-01-24 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MNN0511 | ELITE | 1 |
| 394 | C402 | 4 | X P | 22-1220150-01-01 | CAP CER CCU05 22pF 10% NPO RAD ST2.5 BULK CCU05NP022 | GUIDING | 1 |
| 395 | C403 | 4 | X P | 22-1220150-01-01 | CAP CER CCU05 22pF 10% NPO RAD ST2.5 BULK CCU05NP022 | GUIDING | 1 |
| 396 | C403 | 4 | X A | 22-1220150-01-24 | CAP CER TC 22pF 50V ±10% NPO RAD ST2.5 BULK RCNP0220K502 | BIL | 1 |
| 397 | C404 | 4 | X P | 22-1030150-01-01 | CAP CER TC 3pF 50V ±10% NPO RAD ST2.5 BULK TCNP03R0K502 | BIL | 1 |
| 398 | C405 | 4 | X A | 22-1104160-31-23 | CAP CER/HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | GUIDING | 1 |
| 399 | C405 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 400 | C405 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 401 | C406 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 402 | C406 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 403 | C407 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 404 | C407 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 405 | C407 | 4 | X A | 22-1104160-31-23 | CAP CER/HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 406 | C408 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 407 | C408 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 408 | C408 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 409 | C409 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 410 | C409 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 411 | C409 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 412 | C410 | 4 | X A | 22-3470052-00-18 | CAP ELEC 47uF 35V 20% RAD ST5 BULK GS471M035G200CX | YEC | 1 |
| 413 | C410 | 4 | X P | 22-3471042-00-00 | CAP ELEC GS 47uF 35V 20% RAD ST5 BULK GS471M035G200CX | CAPXON | 1 |
| 414 | C412 | 4 | X P | 22-1220150-01-01 | CAP CER CCU05 22pF 10% NPO RAD ST2.5 BULK CCU05NP022 | GUIDING | 1 |
| 415 | C412 | 4 | X A | 22-1220150-01-24 | CAP CER TC 22pF 50V ±10% NPO RAD ST2.5 BULK RCNP0220K502 | BIL | 1 |
| 416 | C413 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 417 | C413 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MNN0511CX | ELITE | 1 |
| 418 | C413 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 419 | C420 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 420 | C420 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 421 | C420 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% Z5VF RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 422 | C422 | 4 | X A | 22-4122403-10-17 | CAP MYLAR CG02M 220n 100V 10% RAD ST5 BULK | DAE HUNG | 1 |
| 423 | C422 | 4 | X P | 22-4122403-10-10 | CAP MYLAR KT-G 220n 100V 10% RAD ST5 BULK KT-G224K100V | HYOCHUN | 1 |

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|-----|-----------|---|-----|------------------|--|----------------|---|
| 511 | C821 | 4 | X A | 22-1104160-31-23 | CAP CER H-K 0.1μF 50V +80/-20% Z5V/F RAD ST7.5 BULK H-K104M507 | BIL | 1 |
| 512 | C821 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1μF 20% Z5U RAD ST6 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 513 | C821 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1μF +80/-20% 50V Z5V RAD ST5 BULK CKU1425V | GUIDING | 1 |
| 514 | C822 | 4 | X P | 22-3471022-00-00 | CAP ELEC GS 470μF 16V 20% RAD ST6 BULK GS471M016G130CXC | CAPXON | 1 |
| 515 | C822 | 4 | X A | 22-3471022-00-08 | CAP ELEC SM 470μF 16V 20% 85°C VER BULK | YEC | 1 |
| 516 | C823 | 4 | X P | 22-3471022-00-09 | CAP ELEC GS 470μF 16V 20% RAD ST5 BULK GS471M016G130CXC | CAPXON | 1 |
| 517 | C823 | 4 | X A | 22-3471022-00-08 | CAP ELEC SM 470μF 16V 20% 85°C VER BULK | YEC | 1 |
| 518 | C824 | 4 | X P | 22-3471042-30-14 | CAP ELEC RX 470μF 35V 20% RAD BULK 2RX1VB477MCS10030 | SAM-HVA | 1 |
| 519 | C824 | 4 | X A | 22-3471042-30-21 | CAP ELEC RSG 470μF 35V +20% RAD 105°C BULK RSG-35V471MS55 | ELENA | 1 |
| 520 | C825 | 4 | X A | 22-3106052-00-18 | CAP ELEC KR1 1μF 50V 20% RAD BULK KR1-50V010MA | KOSHIN | 1 |
| 521 | C825 | 4 | X P | 22-3106052-00-00 | CAP ELEC GS 1μF 50V 20% RAD ST2.5 BULK GS010M050C110CXC | CAPXON | 1 |
| 522 | C826 | 4 | X P | 22-1220150-01-24 | CAP CER TC 220F ±10% 50VNPO RAD ST5 BULK TCRP0220K505 | BIL | 1 |
| 523 | C827 | 4 | X P | 22-1222160-21-00 | CAP CER KC 2200PF 400VAC ±20% F RAD ST7.5 BULK DE7100F222MVA1 | MURATA | 1 |
| 524 | C828 | 4 | X A | 22-1102150-09-01 | CAP CER CCU03 1nf 10% 50V S/L RAD ST5 BULK CCU03SL102KL45AE | GUIDING | 1 |
| 525 | C828 | 4 | X A | 22-1102150-17-23 | CAP CER HK 1000PF 50V ±10% B RAD ST2.5 BULK H-KB102K502 | BIL | 1 |
| 526 | C828 | 4 | X P | 22-1102150-10-00 | CAP CER CKU06 1000PF 10% 50V Y5E RAD ST5CKU06Y5E102KL45AE | GUIDING | 1 |
| 527 | CF301 | 4 | X A | 28-0107210-01-17 | CER FIL CFSK107M1 280 ±10% ±SK107M1-A0-10 | TOKO | 1 |
| 528 | CF301 | 4 | X P | 28-0107210-01-01 | CER FIL SFE10.7M 280±10% SFE10.7MA5 | MURATA | 1 |
| 529 | CF302 | 4 | X A | 28-0105200-00-17 | CER FIL CFSK105M1 150 ±10% ±SK105M2-A0-20X | TOKO | 1 |
| 530 | CF302 | 4 | X P | 28-0105200-00-01 | CER FIL SFE10.52M 150 ±10% ±SK105M2-A0-20X | MURATA | 1 |
| 531 | CF303 | 4 | X A | 28-0107200-00-17 | CER FIL CFSK107M4 150 ±10% ±SK107M4-A0-20X | TOKO | 1 |
| 532 | CF303 | 4 | X P | 28-0107200-00-01 | CER FIL SFE10.7M SFE10.7MJA10 | MURATA | 1 |
| 533 | CF304 | 4 | X A | 28-0107200-00-17 | CER FIL CFSK107M4 150 ±10% ±SK107M4-A0-20X | TOKO | 1 |
| 534 | CF304 | 4 | X P | 28-0107200-00-01 | CER FIL SFE10.7M SFE10.7MJA10 | MURATA | 1 |
| 535 | CF305 | 4 | X A | 28-0105200-00-17 | CER FIL CFSK105M4 150 ±10% ±SK105M2-A0-20X | TOKO | 1 |
| 536 | CF305 | 4 | X P | 28-0105200-00-01 | CER FIL SFE10.52M 150 ±10% ±SK105M2-A0-20X | MURATA | 1 |
| 537 | D101 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 538 | D101 | 4 | X A | 20-0000000-00-15 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 539 | D101 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 540 | D102 | 4 | X A | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 541 | D102 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 542 | D102 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 543 | D201 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 544 | D201 | 4 | X A | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 545 | D301 | 4 | X P | 20-0000000-00-05 | DIODE VARC 2.8-33.5pF D034 BULK BB909B | PHEIPS | 1 |
| 546 | D403 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 547 | D403 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 548 | D403 | 4 | X A | 20-0000000-00-10 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 549 | D700 | 4 | X P | 26-0110205-00-01 | LED RED RECTANGLE 2 X 5mm BULK | FUTEK | 1 |
| 550 | D800 | 4 | X P | 20-5001701-50-07 | DIODE BRI DF10M 1A 700V BULK DF10M | GI | 1 |
| 551 | D801 | 4 | X P | 20-2701281-20-07 | DIODE RECT FAST REC RGP10 1A 280V DO-41 BULK RGP10G | GI | 1 |
| 552 | D802 | 4 | X P | 20-1001102-20-01 | DIODE RECT 1A/1000V DO41 BULK IN4007 | ITT | 1 |
| 553 | D803 | 4 | X A | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 554 | D803 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 555 | D803 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 556 | D804 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 557 | D804 | 4 | X A | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 558 | D805 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 559 | D805 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 560 | D806 | 4 | X P | 20-2701281-20-07 | DIODE RECT FAST REC RGP10 1A 280V DO-41 BULK RGP10G | GI | 1 |
| 561 | D808 | 4 | X P | 20-2503100-00-02 | DIODE-SKY 3A/0V DO-201AD BULK IN5822 | RECTRON | 1 |
| 562 | D809 | 4 | X P | 20-1301350-50-07 | DIODE RECT FE1A 1A 35V D0204 BULK FE1A | GI | 1 |
| 563 | D810 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 564 | D810 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 565 | D810 | 4 | X A | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 566 | D811 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 567 | D811 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 568 | D812 | 4 | X A | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 569 | D812 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 570 | D812 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 571 | D813 | 4 | X P | 20-3227002-00-01 | DIODE ZENER BZX55 1/2W 5% D035 BULK BZX55-C27V | ITT | 1 |
| 572 | D814 | 4 | X A | 20-0000000-00-16 | DIODE SW4NS D035 BULK IN4148 | KEL | 1 |
| 573 | D814 | 4 | X A | 20-0000000-00-04 | DIODE SW4NS D035 BULK IN4148 | N.S | 1 |
| 574 | D814 | 4 | X P | 20-0000000-00-01 | DIODE SW4NS D035 BULK IN4148 | ITT | 1 |
| 575 | D815 | 4 | P | 20-3218002-00-01 | DIODE ZENER BZX55 18V 1/2W 5% D035 BULK BZX55-C18V | ITT | 1 |
| 576 | F801 | 4 | X P | 33-0111102-00-56 | FUSE TIME-LAG 1.25A 250VAC 0.5 X20mm VDE S504-TI.25A 250V | WELFORD | 1 |
| 577 | F801A | 4 | X P | 33-2002000-00-16 | FUSE COVER 0.5 X20mm PVC S3840620-23 | LOGISTIC | 1 |
| 578 | FC801 | 4 | X P | 33-1000000-00-02 | FUSE CLIP 0.05mm 51E TYPE | BEL | 1 |
| 578 | FC801 | 4 | A | 33-1000001-00-48 | FUSE CLIP 0.05mm VL-210A | WALTER | 1 |
| 578 | FC802 | 4 | A | 33-1000001-00-48 | FUSE CLIP 0.05mm VL-210A | WALTER | 1 |
| 580 | FC802 | 4 | X P | 33-1000000-00-02 | FUSE CLIP 0.05mm 51E TYPE | BEL | 1 |
| 581 | HEAT SINK | 4 | P | 14-0300850-00-22 | MACHINE SCREW M3 X 6 PH NI PLT | | 1 |
| 582 | IFT301 | 4 | X P | 24-3010700-00-11 | IFT 10.7M-Z 82PF Q=80 7MM KS285NC | UK HANG | 1 |
| 582 | IFT302 | 4 | X P | 24-3010700-00-11 | IFT 10.7M-Z 82PF Q=80 7MM KS285NC | UK HANG | 1 |
| 583 | IFT303 | 4 | X P | 24-3010700-00-11 | IFT 10.7M-Z 82PF Q=80 7MM KS285NC | UK HANG | 1 |
| 584 | IR701 | 4 | X P | 26-6041360-10-00 | IR RX 940nm 384KHz SH-ELD ST HC-377M | KODENSHI | 1 |
| 585 | J201 | 1 | X P | 34-1051010-14-52 | HEADER 5 PINS 2.54mm ST JM2411 SER JM2411-5 | STAR WORLD | 1 |
| 586 | J202 | 1 | X P | 34-4020400-00-15 | RCA JACK 2 R-W PCB MOUNT RT HSP-202V-01 | KUNMING | 1 |
| 587 | J203 | 4 | X P | 34-0000002-00-46 | SCART CONNECTOR 21PIN UPSIDE DOWN EI-023 | UNITOP | 1 |
| 587 | J204 | 4 | X P | 34-0000002-00-46 | SCART CONNECTOR 21PIN UPSIDE DOWN EI-023 | UNITOP | 1 |
| 587 | J205 | 4 | X P | 34-0000002-00-46 | SCART CONNECTOR 21PIN UPSIDE DOWN EI-023 | UNITOP | 1 |
| 588 | J403 | 4 | P | 34-1071010-14-52 | HEADER 7 PINS 2.54mm JM2411 SER JM2411-07 | STAR WORLD | 1 |
| 589 | J404 | 4 | X P | 34-1151010-14-52 | HEADER 15 PINS 2.54mm JM2411 SER JM2411-15 | STAR WORLD | 1 |
| 590 | J705 | 4 | X P | 82-1524010-99-52 | CABLE ASSY 15WAY S #2 2.54mm JF2411 SERES 230mm | STAR WORLD | 1 |
| 591 | J800 | 4 | P | 36-2213110-07-40 | POWER CORD 220V 2.5A/250V AC L=8.5FT | HARVEST ELECT. | 1 |
| 592 | J801 | 4 | P | 34-1020010-16-52 | HEADER 2 PINS 10mm PITCH JM1135-2 | STAR WORLD | 1 |

| | | | | | | | | |
|------|------|---|---|------------------|-------------------------------------|-------------------------------------|-----|---|
| R126 | 4 | X | P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/W AXIAL BULK | ANY | 1 | |
| 660 | R127 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 661 | R128 | 4 | X | P | 23-0473200-00-00 | RES CF 47K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 662 | R129 | 4 | X | P | 23-0511200-00-00 | RES CF 510 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 663 | R130 | 4 | X | P | 23-0561200-00-00 | RES CF 560 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 664 | R131 | 4 | X | P | 23-0101200-00-00 | RES CF 100 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 665 | R132 | 4 | X | P | 23-0661200-00-00 | RES CF 600 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 666 | R133 | 4 | X | P | 23-0101220-00-00 | RES CF 101 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 667 | R134 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 668 | R140 | 4 | X | P | 23-0332200-00-00 | RES CF 3.3K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 669 | R140 | 4 | X | P | 23-0302200-00-00 | RES CF 3K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 670 | R141 | 4 | X | P | 23-0821200-00-00 | RES CF 820 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 671 | R142 | 4 | X | P | 23-0221200-00-00 | RES CF 220 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 672 | R143 | 4 | X | P | 23-0561200-00-00 | RES CF 560 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 673 | R144 | 4 | X | P | 23-0151200-00-00 | RES CF 150 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 674 | R145 | 4 | X | P | 23-0151200-00-00 | RES CF 150 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 675 | R146 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 676 | R147 | 4 | X | P | 23-0503200-00-00 | RES CF 56K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 676 | R148 | 4 | X | P | 23-0511200-00-00 | RES CF 510 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 677 | R149 | 4 | X | P | 23-0241200-00-00 | -RES CF 240 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 678 | R150 | 4 | X | P | 23-0391200-00-00 | RES CF 390 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 679 | R151 | 4 | X | P | 23-0122200-00-00 | RES CF 1.2K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 680 | R153 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 681 | R157 | 4 | X | P | 23-0220200-00-00 | RES CF 22 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 682 | R159 | 4 | X | P | 23-0331200-00-00 | RES CF 330 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 683 | R161 | 4 | X | P | 23-0183200-00-00 | RES CF 18K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 684 | R162 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 685 | R163 | 4 | X | P | 23-0181200-00-00 | RES CF 180 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 686 | R164 | 4 | X | P | 23-0101200-00-00 | RES CF 100 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 687 | R165 | 4 | X | P | 23-0241200-00-00 | RES CF 210 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 688 | R166 | 4 | X | P | 23-0101200-00-00 | RES CF 100 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 689 | R167 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 690 | R168 | 4 | X | P | 23-0279200-00-00 | RES CF 2.7 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 691 | R171 | 4 | X | P | 23-0221200-00-00 | RES CF 220 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 692 | R176 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 693 | R178 | 4 | X | P | 23-0223200-00-00 | RES CF 22K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 694 | R179 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 695 | R180 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 696 | R181 | 4 | X | P | 23-0151200-00-00 | RES CF 150 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 697 | R182 | 4 | X | P | 23-0182200-00-00 | RES CF 1.8K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 698 | R188 | 4 | X | P | 23-0332200-00-00 | RES CF 3.3K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 699 | R189 | 4 | X | P | 23-0220200-00-00 | RES CF 22 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 700 | R190 | 4 | X | P | 23-0223200-00-00 | RES CF 22K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 701 | R191 | 4 | X | P | 23-0560200-00-00 | RES CF 56 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 702 | R192 | 4 | X | P | 23-0100220-00-00 | RES CF 10 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 703 | R201 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 704 | R202 | 4 | X | P | 23-1220100-00-00 | RES MF 2.2K OH-M ±1% 1/W AXIAL BULK | ANY | 1 |
| 705 | R203 | 4 | X | P | 23-1220100-00-00 | RES MF 2.2K OH-M ±1% 1/W AXIAL BULK | ANY | 1 |
| 705 | R205 | 4 | X | P | 23-0479220-00-00 | RES CF 4.7 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 705 | R206 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 706 | R207 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 707 | R211 | 4 | X | P | 23-0680200-00-00 | RES CF 68 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 708 | R212 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 709 | R215 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 710 | R217 | 4 | X | P | 23-0104200-00-00 | RES CF 100K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 711 | R218 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 712 | R219 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 713 | R221 | 4 | X | P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 714 | R222 | 4 | X | P | 23-0104200-00-00 | RES CF 100K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 715 | R223 | 4 | X | P | 23-1220000-00-00 | RES MF 220 OH-M ±1% 1/W AXIAL BULK | ANY | 1 |
| 716 | R224 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 725 | R225 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 726 | R226 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 727 | R227 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 728 | R228 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 729 | R229 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 730 | R230 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 731 | R231 | 4 | X | P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 732 | R232 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 733 | R233 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 734 | R234 | 4 | X | P | 23-033200-00-00 | RES CF 33K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 735 | R235 | 4 | X | P | 23-0331200-00-00 | RES CF 330 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 736 | R236 | 4 | X | P | 23-0331200-00-00 | RES CF 330 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 737 | R237 | 4 | X | P | 23-0104200-00-00 | RES CF 100K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 738 | R238 | 4 | X | P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 739 | R239 | 4 | X | P | 23-0680200-00-00 | RES CF 68 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 740 | R240 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 741 | R241 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 742 | R245 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 743 | R246 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 744 | R248 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 745 | R249 | 4 | X | P | 23-0680200-00-00 | RES CF 68 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 746 | R250 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 747 | R251 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 748 | R252 | 4 | X | P | 23-0331200-00-00 | RES CF 330 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 749 | R253 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 750 | R254 | 4 | X | P | 23-0750200-00-00 | RES CF 75 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 751 | R265 | 4 | X | P | 23-0680200-00-00 | RES CF 68 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 752 | R271 | 4 | X | P | 23-0122200-00-00 | RES CF 1.2K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 753 | R273 | 4 | X | P | 23-0105200-00-00 | RES CF 1M OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 754 | R275 | 4 | X | P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/W AXIAL BULK | ANY | 1 |

| | | | | | | | |
|------------|---|---|------------------|---|---|------------|---|
| R706 | 4 | X | P | 23-0221200-00-00 | RES CF 220 OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| R707 | 4 | X | P | 23-0221200-00-00 | RES CF 220 OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| R708 | 4 | X | P | 23-0221200-00-00 | RES CF 220 OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| 802 R709 | 4 | X | P | 23-0561200-00-00 | RES CF 560 OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| R710 | 4 | X | P | 23-0561200-00-00 | RES CF 560 OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| R711 | 4 | X | P | 23-0561200-00-00 | RES CF 560 OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| R712 | 4 | X | P | 23-0561200-00-00 | RES CF 560 OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| 803 R713 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| R714 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| R715 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 804 R716 | 4 | X | P | 23-0473200-00-00 | RES CF 47K OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| R717 | 4 | X | P | 23-0473200-00-00 | RES CF 47K OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| R718 | 4 | X | P | 23-0473200-00-00 | RES CF 47K OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| 805 R719 | 4 | X | P | 23-0221200-00-00 | RES CF 220 OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 806 R722 | 4 | X | P | 23-0561200-00-00 | RES CF 560 OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 807 R730 | 4 | X | P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 808 R731 | 4 | X | P | 23-0220200-00-00 | RES CF 22 OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| 809 R800 | 4 | X | P | 23-0824220-00-00 | RES CF 820K OH-M 5% 1/BWAXIAL BULK | KAYOCO | 1 |
| 810 R801 | 4 | X | A | 23-3100280-01-11 | RES VVV 10 OH-M 5% 5V RADIAL BULK SQM | KOA | 1 |
| 811 R801 | 4 | P | 23-3100280-01-03 | RES VVV 10 OH-M 5% 5V RADIAL BULK BVRSN10Ü | ANY | 1 | |
| 812 R802 | 4 | X | P | 23-0104240-00-00 | RES CF 100K OH-M 5% 1/WAXIAL BULK | ANY | 1 |
| 813 R804 | 4 | P | 23-5229230-00-00 | RES FUSIBLE 2.2 OH-M 5% 1/2W AXIAL BULK | ANY | 1 | |
| 814 R805 | 4 | P | 23-3102280-01-03 | RES VVV 1K OH-M 5% 5V RADIAL BULK BSR5X1Ü | KOA | 1 | |
| 815 R805 | 4 | X | A | 23-3102280-01-11 | RES VVV 1K OH-M 5% 5V RADIAL BULK SQZ | KAYOCO | 1 |
| 816 R806 | 4 | X | P | 23-0105200-00-00 | RES CF 1M OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 817 R807 | 4 | X | P | 23-1270200-00-00 | RES MF 27K OH-M 1% 1/BWAXIAL BULK | ANY | 1 |
| 818 R808 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| R809 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 819 R810 | 4 | X | P | 23-0102200-00-00 | RES CF 10K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 820 R811 | 4 | X | P | 23-0101220-00-00 | RES CF 100 OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 821 R812 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 822 R813 | 4 | X | P | 23-0221200-00-00 | RES CF 220 OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 823 R814 | 4 | P | 23-2479230-00-00 | RES MO 4.7 OH-M 5% 1/BWAXIAL BULK | ANY | 1 | |
| 824 R815 | 4 | P | 23-2229230-00-00 | RES MO 2.2 OH-M 5% 1/BWAXIAL BULK | ANY | 1 | |
| 825 R816 | 4 | X | P | 23-0471200-00-00 | RES CF 470 OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 826 R817 | 4 | X | P | 23-0101220-00-00 | RES CF 100 OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 827 R818 | 4 | X | P | 23-0122200-00-00 | RES CF 1.2K OH-M 15% 1/BWAXIAL BULK | ANY | 1 |
| 828 R819 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 829 R821 | 4 | X | P | 23-0102230-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 830 R822 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 831 R823 | 4 | X | P | 23-0221200-00-00 | RES CF 220 OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 832 R824 | 4 | X | P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 833 R825 | 4 | X | P | 23-0224200-00-00 | RES CF 220K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 834 R826 | 4 | X | P | 23-0109240-00-00 | RES CF 1 OH-M 5% 1/VAXIAL BULK | ANY | 1 |
| 835 R827 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 836 R828 | 4 | X | P | 23-0104200-00-00 | RES CF 100K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 837 R829 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 838 R830 | 4 | X | P | 23-0104200-00-00 | RES CF 100K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 839 R831 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| R832 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| R833 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| R834 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| R835 | 4 | X | P | 23-1270200-00-00 | RES MF 27K OH-M 1% 1/BWAXIAL BULK | ANY | 1 |
| 840 R836 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 841 R837 | 4 | X | P | 23-0102200-00-00 | RES CF 10K OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 842 R838 | 4 | X | P | 23-0103200-00-00 | RES MF 12K OH-M 1% 1/BWAXIAL BULK | ANY | 1 |
| 843 R839 | 4 | X | P | 23-1120200-00-00 | RES CF 3.3K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 844 R840 | 4 | X | P | 23-0332200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 845 R842 | 4 | X | P | 23-0102200-00-00 | RES CF 10K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 846 R843 | 4 | X | P | 23-1300100-00-00 | RES MF 3.8K OH-M 1% 1/BWAXIAL BULK | ANY | 1 |
| 847 R844 | 4 | X | P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/BWAXIAL BULK | ANY | 1 |
| 848 R845 | 4 | X | P | 23-1330100-00-00 | RES MF 3.3K OH-M 1% 1/BWAXIAL BULK | ANY | 1 |
| 849 R846 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| R847 | 4 | X | P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/BWAXIAL BULK | ANY | 1 |
| 850 R848 | 4 | X | P | 23-0561200-00-00 | RES CF 560 OH-M ±5% 1/BWAXIAL BULK | THUNDER | 1 |
| 851 RN1 | 4 | X | A | 23-4472200-04-09 | RES RN 4.7K OH-M 5% 1/BW SIL 8 PINS COMMON PIN 1 RA1/808A472J | PANASONIC | 1 |
| 852 RN1 | 4 | P | 23-4472200-04-00 | RES RN 4.7K OH-M 5% 1/BW SIL 8PINS COMMON PIN 1 EXBP807472J | ALPS | 1 | |
| 853 SV701 | 4 | P | 35-1001112-04-07 | SWTACT NO 1PIT 500mA 50V ST H=5mm SK+HAK | KIE | 1 | |
| 854 SV701 | 4 | A | 35-1001115-06-02 | SWTACT NO 1PIT 500mA 12V VER H=5mm | ALPS | 1 | |
| 855 SV703 | 4 | P | 35-1001112-04-07 | SWTACT NO 1PIT 500mA 50V ST H=5mm SK+HAK | KIE | 1 | |
| 856 SV703 | 4 | A | 35-1001115-06-02 | SWTACT NO 1PIT 500mA 12V VER H=5mm | ALPS | 1 | |
| 857 SV704 | 4 | P | 35-1001112-04-07 | SWTACT NO 1PIT 500mA 50V ST H=5mm SK+HAK | KIE | 1 | |
| 858 SV704 | 4 | A | 35-1001115-06-02 | SWTACT NO 1PIT 500mA 12V VER H=5mm | ALPS | 1 | |
| 859 SV706 | 4 | P | 35-1001112-04-07 | SWTACT NO 1PIT 500mA 50V ST H=5mm SK+HAK | KIE | 1 | |
| 860 SW706 | 4 | A | 35-1001115-06-02 | SWTACT NO 1PIT 500mA 12V VER H=5mm | COREL | 1 | |
| 861 T801 | 4 | X | P | 24-5353011-01-08 | LINE FILTER IF UU-16 35mH SR1581 | COREL | 1 |
| 862 T802 | 4 | X | A | 25-0140003-11-12 | XFORMER PW ERL-28 220V RC3894/ERL-28 VDE | BRILLIANT | 1 |
| 863 T802 | 4 | X | P | 16-0130114-03-12 | TEST PIN DIA 1.3 X 11.3L 0.3THK BRASS | GOLD MEDAL | 1 |
| 864 TP1 | 4 | X | P | 16-0130114-03-12 | TEST PIN DIA 1.3 X 11.3L 0.3THK BRASS | GOLD MEDAL | 1 |
| 865 TUN102 | 4 | X | P | 29-1000009-00-15 | BS TUNER BF5-6312 BW/27M±2050M±2BF5-6312E | HTACH | 1 |
| 866 U101 | 4 | X | P | 27-9392000-00-04 | I.C. VOLT COMPARATOR/OP AMP LM392 PDIL LM392 | N.S. | 1 |
| 867 U201 | 4 | X | P | 27-5079520-00-02 | I.C. AV SVLA7952 4l-1 PDIL LA7952 | SANYO | 1 |
| 868 U202 | 4 | X | P | 27-5550110-02-01 | I.C. OSD GEN M35011 PSDIL M35011-001SP | MITSUBISHI | 1 |
| 869 U203 | 4 | P | 27-0540520-00-04 | I.C. LOGIC 4052 PDIL CD4052 | N.S. | 1 | |
| 870 U203 | 4 | A | 27-0540520-00-22 | I.C. LOGIC ANALOG SWV 4052 PDIL RCA4052 | RCA | 1 | |
| 871 U301 | 4 | X | P | 27-7761600-05-21 | I.C. AUDIO TDA6160X IF/V/3FM DEMOD FP TDA6160-2X | SIEMENS | 1 |
| 872 U302 | 4 | X | P | 27-7618940-00-04 | I.C. AUDIO LM1894 DNR PDIL LM1894N | N.S. | 1 |
| 873 U303 | 4 | P | 27-0540520-00-04 | I.C. LOGIC 4052 PDIL CD4052 | N.S. | 1 | |
| 874 U303 | 4 | A | 27-0540520-00-22 | I.C. LOGIC ANALOG SWV 4052 PDIL RCA4052 | RCA | 1 | |
| 875 U304 | 4 | P | 27-3000501-07-09 | I.C. REG MC78L05 5V/0.1A TO-92 MC78L05 | MOTOROLA | 1 | |

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|-----|-------|---|-----|------------------|---|----------|---|
| 876 | U401 | 4 | P | 27-1041204-02-12 | MCU 16BIT 12KROM 256 RAM MPD751 PSDIL MPD75112CW | NEC | 1 |
| 877 | U402 | 4 | X P | 27-2300225-00-04 | I.C. EEPROM 2KBYTE 250NS PDIL NM24C16N | N.S. | 1 |
| 878 | U402 | 4 | X A | 27-2300225-00-25 | I.C. EEPROM 2KBYTE 250NS PDIL 24C16 AT24C16 | ATMEL | 1 |
| 879 | U801 | 4 | X P | 27-9384200-00-20 | I.C. PWM CONTROL CS3842 PDIL CS3842A | CHERRY | 1 |
| 880 | U802 | 4 | X P | 26-3000000-02-08 | PHOTO-COPLILER POWER ISOLATION VDE CNX82A | QTC | 1 |
| 881 | U803 | 4 | X A | 27-9431000-07-14 | I.C. VOLT REFERENCE NJM431 TO-92 NJM431L | JRC | 1 |
| 882 | U803 | 4 | X P | 27-9431000-07-15 | IC VOLT REFERENCE TL431 TO-92 TL431C | TI | 1 |
| 883 | U804 | 4 | X P | 27-0392000-00-04 | IC VOLT COMPARATOR /OP AMP LM382 PDIL LM392 | N.S. | 1 |
| 884 | VC201 | 4 | X A | 22-7300210-00-02 | CAP VC 30pF ±20% SEALED HORI. | TRIWOODS | 1 |
| 885 | VC201 | 4 | X A | 22-7300210-00-04 | CAP VC 30pF ±20% SEALED HORI.CVN630 | ELNA | 1 |
| 886 | VC201 | 4 | X P | 22-7300210-00-01 | CAP VC 30pF ±20% SEALED HORI. | UNION | 1 |
| 887 | VC202 | 4 | X A | 22-7300210-00-02 | CAP VC 30pF ±20% SEALED HORI. | TRIWOODS | 1 |
| 888 | VC202 | 4 | X A | 22-7300210-00-04 | CAP VC 30pF ±20% SEALED HORI.CVN630 | ELNA | 1 |
| 889 | VC202 | 4 | X P | 22-7300210-00-01 | CAP VC 30pF ±20% SEALED HORI. | UNION | 1 |
| 890 | VR101 | 4 | X P | 30-0102105-02-22 | VR SEMI-FIX RES CF 1K OHM B 20% 5mm HOR KVSF637ASB1K | KOA | 1 |
| 891 | VR801 | 4 | X P | 30-0103105-02-22 | VR SEMI-FIXED RESISTOR CF 10K OHM B 20% 5mm HOR KVSF637ASB10K | KOA | 1 |
| 892 | VR802 | 4 | X P | 30-0102105-02-22 | VR SEMI-FIX RES CF 1K OHM B 20% 5mm HOR KVSF637ASB1K | KOA | 1 |
| 893 | XZ01 | 4 | X A | 28-5177200-02-20 | CRYSTAL 17.734475MHz 30ppm HC-49U (17.734475MHz) | HOORAY | 1 |
| 894 | XZ01 | 4 | X P | 28-5177200-02-08 | CRYSTAL 17.734475MHz 30ppm HC-49U | DENETRON | 1 |
| 895 | XZ01 | 4 | X A | 28-5177200-02-22 | CRYSTAL 17.734475MHz 30ppm HC-49U (17.734475MHz) | MIZU | 1 |
| 896 | X101 | 4 | X P | 28-5400100-02-19 | CRYSTAL 1MHz 30ppm HC-49U | CHEQUERS | 1 |
| 897 | X101 | 4 | X A | 28-5400100-02-20 | CRYSTAL 4.000MHz 30ppm HC-49U 4.000MHz | HOORAY | 1 |
| 898 | X101 | 4 | X A | 28-5400100-02-22 | CRYSTAL 4.000MHz 30ppm HC-49U 4.000MHz | MIZU | 1 |
| 899 | Z101 | 4 | X P | 20-3227002-00-01 | DIODE ZENER BZX55 1/2W 5% D035 BULK BZX55-C27V | ITT | 1 |
| 900 | Z201 | 4 | X P | 20-3251902-00-01 | DIODE ZENER BZX55 5V1 1/2W 5% D035 BULK BZX55-C5V1 | ITT | 1 |
| | Z202 | 4 | X P | 20-3251902-00-01 | DIODE ZENER BZX55 5V1 1/2W 5% D035 BULK BZX55-C5V1 | ITT | 1 |
| 901 | Z401 | 4 | X P | 20-3239902-00-01 | DIODE ZENER BZX55 1/2W ±5% D035 BULK BZX55-C3V9 | ITT | 1 |
| 902 | Z402 | 4 | X P | 20-3251902-00-01 | DIODE ZENER BZX55 5V1 1/2W 5% D035 BULK BZX55-C5V1 | ITT | 1 |
| 903 | Z405 | 4 | X P | 20-3291902-00-01 | DIODE ZENER BZX55 9V1 1/2W 5% D035 BULK BZX55-C9V1 | ITT | 1 |

| | | | | | | | |
|-----|------|---|-----|------------------|--------------------------------------|-----|---|
| 739 | R276 | 4 | X P | 23-0104200-00-00 | RES CF 100K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| | R277 | 4 | X P | 23-0104200-00-00 | RES CF 100K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 740 | R278 | 4 | X P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 741 | R279 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 742 | R280 | 1 | X P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 743 | R281 | 4 | X P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 744 | R288 | 4 | X P | 23-0391200-00-00 | RES CF 390 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 745 | R301 | 4 | X P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 746 | R302 | 4 | X P | 23-0151200-00-00 | RES CF 150 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 747 | R303 | 4 | X P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 748 | R310 | 4 | X P | 23-0151200-00-00 | RES CF 150 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 749 | R311 | 4 | X P | 23-0471200-00-00 | RES CF 470 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R312 | 4 | X P | 23-0471200-00-00 | RES CF 470 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 750 | R313 | 4 | X P | 23-0153200-00-00 | RES CF 15K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 751 | R314 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 752 | R315 | 4 | X P | 23-0911200-00-00 | RES CF 910 OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| | R316 | 4 | X P | 23-0911200-00-00 | RES CF 910 OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 753 | R318 | 4 | X P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 754 | R319 | 4 | X P | 23-0682200-00-00 | RES CF 6.8K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 755 | R320 | 4 | X P | 23-0821200-00-00 | RES CF 820 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 756 | R321 | 4 | X P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 757 | R322 | 4 | X P | 23-0270200-00-00 | RES CF 27 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 758 | R331 | 4 | X P | 23-0101200-00-00 | RES CF 100 OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| | R332 | 4 | X P | 23-0101200-00-00 | RES CF 100 OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 759 | R333 | 4 | X P | 23-0473200-00-00 | RES CF 47K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 760 | R348 | 4 | X P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 761 | R349 | 4 | X P | 23-0182200-00-00 | RES CF 1.8K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 762 | R350 | 4 | X P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 763 | R351 | 4 | X P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R352 | 4 | X P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 765 | R353 | 4 | X P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R354 | 4 | X P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 764 | R355 | 4 | X P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 765 | R356 | 4 | X P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 766 | R357 | 4 | X P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R358 | 4 | X P | 23-0333200-00-00 | RES CF 33K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 767 | R359 | 4 | X P | 23-0561200-00-00 | RES CF 560 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 768 | R360 | 4 | X P | 23-0561200-00-00 | RES CF 560 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 768 | R363 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 764 | R364 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 769 | R365 | 4 | X P | 23-0223200-00-00 | RES CF 22K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R366 | 4 | X P | 23-0223200-00-00 | RES CF 22K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 770 | R373 | 4 | X P | 23-0473200-00-00 | RES CF 47K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R374 | 4 | X P | 23-0473200-00-00 | RES CF 47K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 771 | R402 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 772 | R403 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 773 | R404 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 774 | R405 | 4 | X P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R410 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 775 | R411 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R417 | 4 | X P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R418 | 4 | X P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 776 | R420 | 4 | X P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 777 | R421 | 4 | X P | 23-0104200-00-00 | RES CF 100K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 779 | R426 | 4 | X P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R427 | 4 | X P | 23-0472200-00-00 | RES CF 4.7K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 780 | R431 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R432 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 781 | R433 | 4 | X P | 23-0684200-00-00 | RES CF 680K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 782 | R434 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R435 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R441 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R442 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 783 | R443 | 4 | X P | 23-0471200-00-00 | RES CF 47K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 784 | R444 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 785 | R445 | 4 | X P | 23-0100220-00-00 | RES CF 10 OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 786 | R458 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 787 | R460 | 4 | X P | 23-0562200-00-00 | RES CF 5.6K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 788 | R461 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 789 | R462 | 4 | X P | 23-0102200-00-00 | RES CF 1K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 790 | R467 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R469 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R470 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 791 | R472 | 4 | X P | 23-1470100-00-00 | RES MF 4.7K OH-M 1% 1/6W AXIAL BULK | ANY | 1 |
| | R473 | 4 | X P | 23-1470100-00-00 | RES MF 4.7K OH-M 1% 1/6W AXIAL BULK | ANY | 1 |
| 792 | R474 | 4 | X P | 23-1120200-00-00 | RES MF 12K OH-M ±1% 1/6W AXIAL BULK | ANY | 1 |
| 793 | R475 | 4 | X P | 23-1102000-00-00 | RES MF 10K OH-M ±1% 1/6W AXIAL BULK | ANY | 1 |
| | R476 | 4 | X P | 23-1100100-00-00 | RES MF 1K OH-M 1% 1/6W AXIAL BULK | ANY | 1 |
| 795 | R477 | 4 | X P | 23-1200100-00-00 | RES MF 2K OH-M ±1% 1/6W AXIAL BULK | ANY | 1 |
| 796 | R478 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 797 | R479 | 4 | X P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 798 | R480 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R481 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R482 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| | R483 | 4 | X P | 23-0103200-00-00 | RES CF 10K OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 799 | R484 | 4 | X P | 23-0102240-00-00 | RES CF 1K OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 800 | R701 | 4 | X P | 23-0101200-00-00 | RES CF 100 OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| 801 | R702 | 4 | X P | 23-0221200-00-00 | RES CF 220 OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| | R703 | 4 | X P | 23-0221200-00-00 | RES CF 220 OH-M 5% 1/8W AXIAL BULK | ANY | 1 |
| | R704 | 4 | X P | 23-0221200-00-00 | RES CF 220 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |
| 705 | | 4 | X P | 23-0221200-00-00 | RES CF 220 OH-M ±5% 1/8W AXIAL BULK | ANY | 1 |

| | | | | | | | |
|------|--------|-----|------------------|---|---|------------|---|
| 593 | J802 | 4 | X P | 82-0722008-99-52 | CABLE ASSY 7 WAYS #22 2.54P JP2411 SERIES 150mm | STAR WORLD | 1 |
| 594 | J804 | 4 | X P | 82-0524008-99-52 | CABLE ASSY 5 WAYS #24 2.54P JP2411 SERIES 70mm | STAR WORLD | 1 |
| 595 | JP1 | 4 | X P | 36-3245241-00-52 | SINGLE WIRE #24 L=240mm BLACK TIN LEAD UL1007 | STAR WORLD | 1 |
| 596 | JP3 | 4 | X P | 36-3240171-00-52 | SINGLE WIRE #24 L=170mm RED TIN LEAD UL1007 | STAR WORLD | 1 |
| | JP4 | 4 | X P | 36-3240171-00-52 | SINGLE WIRE #24 L=170mm RED TIN LEAD UL1007 | STAR WORLD | 1 |
| 597 | L101 | 4 | X A | 24-0279100-00-08 | IND PEAK 2.7U±10% CEC SERIES AXIAL BULK CEC-2R7K | MATSUTA | 1 |
| 598 | L101 | 4 | A | 24-0270107-00-08 | IND PEAK 2.7U±10% CEC AXIAL BULK CEC-2R7K | COILS | 1 |
| 599 | L101 | 4 | X P | 24-0279100-00-02 | IND PEAKING 2.7U±10% ALD305 AXIAL BULK AL0305-2R7K | MATSUTA | 1 |
| 600 | L102 | 4 | X A | 24-0279100-00-08 | IND PEAK 2.7U±10% CEC SERIES AXIAL BULK CEC-2R7K | MATSUTA | 1 |
| 601 | L102 | 4 | X P | 24-0278100-00-02 | IND PEAKING 2.7U±10% ALD305 AXIAL BULK AL0305-2R7K | MATSUTA | 1 |
| 602 | L102 | 4 | A | 24-0278107-00-08 | IND PEAK 2.7U±10% CEC AXIAL BULK CEC-2R7K | COILS | 1 |
| 603 | L103 | 4 | X A | 24-0279100-00-08 | IND PEAK 2.7U±10% CEC SERIES AXIAL BULK CEC-2R7K | MATSUTA | 1 |
| 604 | L103 | 4 | A | 24-0279107-00-08 | IND PEAK 2.7U±10% CEC AXIAL BULK CEC-2R7K | COILS | 1 |
| 605 | L103 | 4 | X P | 24-0279100-00-02 | IND PEAKING 2.7U±10% ALD305 AXIAL BULK AL0305-2R7K | MATSUTA | 1 |
| 606 | L201 | 4 | X A | 24-0150101-00-01 | IND CHOKE 15UH 10% SP0305 AXIAL BULK SP0305-150K-2 | TDK | 1 |
| 607 | L201 | 4 | X P | 24-0150100-00-02 | IND. CHOKE 15UH 10% AL0305 AXIAL BULK AL0305-150K | MATSUTA | 1 |
| 608 | L302 | 4 | X A | 24-0569100-00-08 | IND PEAK 5.6UH 10% CEC SERIES AXIAL BULK CEC-SR6K | COILS | 1 |
| 609 | L302 | 4 | X P | 24-0569100-00-02 | IND PEAK 5.6UH 10% ALD305 AXIAL BULK AL0305-5R6K | MATSUTA | 1 |
| 610 | L302 | 4 | A | 24-0569101-00-01 | IND CHOKE 5.6UH 10% SP0305 AXIAL BULK SP0305-5R6K-2 | TDK | 1 |
| 611 | L303 | 4 | X P | 24-0279100-00-02 | IND PEAKING 2.7U±10% ALD305 AXIAL BULK AL0305-2R7K | MATSUTA | 1 |
| 612 | L303 | 4 | X A | 24-0279100-00-08 | IND PEAK 2.7U±10% CEC SERIES AXIAL BULK CEC-2R7K | MATSUTA | 1 |
| 613 | L303 | 4 | A | 24-0279107-00-08 | IND PEAK 2.7U±10% CEC AXIAL BULK CEC-2R7K | COILS | 1 |
| 614 | L304 | 4 | X P | 24-0189100-00-02 | IND. CHOKE 1.8UH 10% ALD305 AXIAL BULK AL0305-1R8K | MATSUTA | 1 |
| 615 | L401 | 4 | X P | 24-0510101-02-02 | IND. LINE CHOKE 100UH 1A 250VAC VDE RL5080-101K | MATSUTA | 1 |
| 616 | L801 | 4 | X P | 24-0330116-10-02 | IND CHOKE 33UH±10% RL8080 RADIAL BULK RL8080-330K | MATSUTA | 1 |
| 617 | L802 | 4 | X P | 24-0331115-10-02 | IND CHOKE 330UH±10% RL1415 RADIAL BULK RL1415-331K | MATSUTA | 1 |
| 618 | L803 | 4 | X P | 24-0330116-10-02 | IND CHOKE 33UH±10% RL8080 RADIAL BULK RL8080-330K | MATSUTA | 1 |
| 619 | LED701 | 4 | X P | 41-1310000-00-03 | LED DISPLAY 7-SEGMENT VWDOT X3 GREEN A-563G-12 | PARA | 1 |
| 620 | MOD1 | 4 | X P | 29-2000010-00-16 | MODULATOR HL-RMBT-E38LS PAL G CH30-HL-RMBT-E38LS | HWA LIN | 1 |
| 621 | MOD1 | 4 | X A | 29-2000008-00-05 | MODULATOR EL1651T PAL G CHAN 31-39 EL1651T | SHARP | 1 |
| 622 | Q102 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEF 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| | Q103 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEF 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| 623 | Q104 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| 624 | Q106 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| Q108 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q109 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q110 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| 625 | Q111 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| 626 | Q112 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| Q118 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q121 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| 627 | Q122 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| 628 | Q130 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| 629 | Q134 | 4 | X P | 21-0100100-00-00 | XTR SS 2SC1815 NPN HFE100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| 630 | Q147 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| Q152 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q175 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q204 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q205 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| 631 | Q206 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| Q207 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 | |
| Q209 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 | |
| 632 | Q210 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| Q211 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q212 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| 633 | Q213 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| 634 | Q259 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| Q301 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| 635 | Q302 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| Q303 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 | |
| 636 | Q401 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| Q406 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q407 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| Q408 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| 637 | Q410 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| Q411 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 | |
| 638 | Q412 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| Q413 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 | |
| 639 | Q414 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| 640 | Q415 | 4 | X P | 21-1036004-50-06 | XTR PWV2SD862 3A 60V TO-126 BULK 2SD862 | NEC | 1 |
| 641 | Q415 | 4 | X A | 21-1036006-50-06 | XTR PWV2SD862Q 3A 60V TO-126 BULK 2SD862Q | NEC | 1 |
| 642 | Q415 | 4 | X A | 21-1036005-50-06 | XTR PWV2SD862P 3A 60V TO-126 BULK 2SD862P | NEC | 1 |
| 643 | Q416 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| 644 | Q701 | 4 | X P | 21-01L7100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| Q702 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 | |
| Q703 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 | |
| 645 | Q801 | 4 | X P | 21-1054510-30-09 | XTR PWVWUF18004 5A 450V TO-220 BULK MJF18004 | MOTOROLA | 1 |
| 646 | Q802 | 4 | X P | 21-1045000-50-12 | XTR PWV2SB1143S 4A 50V TO-126 BULK 2SB1143S | SANYO | 1 |
| 647 | Q803 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| 648 | Q804 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| 649 | Q805 | 4 | X P | 21-0100100-00-00 | XTR SS 2SA1015 PNP HFE100 200M TO-92 BULK 2SA1015Y | TOSHIBA | 1 |
| 650 | Q806 | 4 | X P | 21-0000010-00-00 | XTR SS 2SC1815 NPN HEP 100 200M TO-92 BULK 2SC1815Y | TOSHIBA | 1 |
| 651 | Q807 | 4 | X P | 21-1036008-30-12 | XTR PWV2SD1913 3A 60V TO-220ML BULK 2SD1913R | SANYO | 1 |
| 652 | R101 | 4 | X P | 23-0222220-00-00 | RES CF 2K2 OH-M 5% 1/W AXIAL BULK | ANY | 1 |
| 653 | R102 | 4 | X P | 23-0222220-00-00 | RES CF 2.2 OH-M 5% 1/W AXIAL BULK | ANY | 1 |
| 654 | R111 | 4 | X P | 23-0220200-00-00 | RES CF 22 OH-M ±5% 1/W AXIAL BULK | ANY | 1 |
| 655 | R121 | 4 | X P | 23-0104200-00-00 | RES CF 100K OH-M 5% 1/VW AXIAL BULK | ANY | 1 |
| 656 | R122 | 4 | X P | 23-0473200-00-00 | RES CF 47K OH-M ±5% 1/BW AXIAL BULK | ANY | 1 |
| 657 | R123 | 4 | X P | 23-0471200-00-00 | RES CF 470 OH-M ±5% 1/BW AXIAL BULK | ANY | 1 |
| 658 | R124 | 4 | X P | 23-0391200-00-00 | RES CF 390 OH-M ±5% 1/BW AXIAL BULK | ANY | 1 |
| 659 | R125 | 4 | X P | 23-0222200-00-00 | RES CF 2.2K OH-M ±5% 1/BW AXIAL BULK | ANY | 1 |

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|------|------|---|-----|-------------------|---|----------|---|
| 424 | C431 | 4 | X A | 22-1220150-01-24 | CAP CER TC 22pF 50V ±10% NPO RAD ST2.5 BULK RCNP0220K502 | BIL | 1 |
| 425 | C431 | 4 | X P | 22-1220150-01-01 | CAP CER CCU05 22pF 10% 50V NPO RAD ST2.5 BULK CCU05NPO22 | GUIDING | 1 |
| 426 | C432 | 4 | X A | 22-1220150-01-24 | CAP CER TC 22pF 50V ±10% NPO RAD ST2.5 BULK RCNP0220K502 | BIL | 1 |
| 427 | C432 | 4 | X P | 22-1220150-01-01 | CAP CER CCU05 22pF 10% 50V NPO RAD ST2.5 BULK CCU05NPO22 | GUIDING | 1 |
| C444 | | 4 | X P | 22-1220150-01-01 | CAP CER CCU05 22pF 10% 50V NPO RAD ST2.5 BULK CCU05NPO22 | GUIDING | 1 |
| 428 | C444 | 4 | X A | 22-1220150-01-24 | CAP CER TC 22pF 50V ±10% NPO RAD ST2.5 BULK RCNP0220K502 | BIL | 1 |
| C445 | | 4 | X A | 22-1220150-01-24 | CAP CER CCU05 22pF 10% 50V NPO RAD ST2.5 BULK CCU05NPO22 | GUIDING | 1 |
| 429 | C445 | 4 | X P | 22-1220150-01-01 | CAP CER TC 22pF 50V ±10% NPO RAD ST2.5 BULK RCNP0220K502 | BIL | 1 |
| 430 | C446 | 4 | X A | 22-1220150-01-24 | CAP CER CCU05 22pF 10% 50V NPO RAD ST2.5 BULK CCU05NPO22 | GUIDING | 1 |
| 431 | C446 | 4 | X P | 22-1220150-01-01 | CAP CER CCU05 22pF 10% 50V NPO RAD ST2.5 BULK CCU05NPO22 | GUIDING | 1 |
| C456 | | 4 | X P | 22-1220150-01-01 | CAP CER CCU05 22pF 10% 50V NPO RAD ST2.5 BULK CCU05NPO22 | GUIDING | 1 |
| 432 | C456 | 4 | X A | 22-1220150-01-24 | CAP CER TC 22pF 50V ±10% NPO RAD ST2.5 BULK RCNP0220K502 | BIL | 1 |
| 433 | C457 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 434 | C457 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 435 | C457 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXXN0511CXC | ELITE | 1 |
| 436 | C458 | 4 | X A | 22-1104170-31-32 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14ZSV | GUIDING | 1 |
| 437 | C458 | 4 | X A | 22-1104180-31-23 | CAP CER HK 0.1uF 50V +80-20% ZSV/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 438 | C458 | 4 | X P | 22-1104180-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 439 | C459 | 4 | X A | 22-1104170-31-32 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14ZSV | GUIDING | 1 |
| 440 | C459 | 4 | X A | 22-1104180-31-23 | CAP CER HK 0.1uF 50V +80-20% ZSV/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 441 | C459 | 4 | X P | 22-1104180-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 442 | C460 | 4 | X A | 22-3471022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST5 BULK SM1C471MXXN10125 | ELITE | 1 |
| 443 | C460 | 4 | X A | 22-3471022-30-21 | CAP ELEC RSG 47uF 16V ±20% RAD 105°C BULK RSG-16V471MS43 | ELNA | 1 |
| 444 | C460 | 4 | X A | 22-3471022-30-14 | CAP ELEC RX 47uF 16V 20% RAD BULK 2RX1C-B477MCS10020 | SAM-HWA | 1 |
| 445 | C460 | 4 | X P | 22-3471022-00-00 | CAP ELEC GS 47uF 16V 20% RAD ST5 BULK GS471M016G130CXC | CAPXON | 1 |
| 446 | C460 | 4 | X A | 22-3471022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 447 | C461 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14ZSV | GUIDING | 1 |
| 448 | C461 | 4 | X P | 22-1104180-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 449 | C461 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% ZSV/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 450 | C462 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 451 | C462 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXXN0511CXC | ELITE | 1 |
| 452 | C462 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 453 | C463 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXXN0511CXC | ELITE | 1 |
| 454 | C463 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 455 | C463 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 456 | C464 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXXN0511CXC | ELITE | 1 |
| 457 | C464 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 458 | C464 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 459 | C465 | 4 | X P | 22-4133203-10-10 | CAP MYLAR KT-G 3300pF 100V 10% RAD ST3.5 BULK | HYOCHUN | 1 |
| 460 | C465 | 4 | X A | 22-4133203-10-17 | CAP MYLAR Q92M 3300pF 100V 10% RAD BULK | DAE-HUNG | 1 |
| 461 | C703 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14ZSV, | GUIDING | 1 |
| 462 | C703 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% ZSV/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 463 | C703 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 464 | C705 | 4 | X P | 22-3471022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 465 | C705 | 4 | X A | 22-3471022-30-21 | CAP ELEC RSG 47uF 16V ±20% RAD 105°C BULK RSG-16V471MS43 | ELNA | 1 |
| 466 | C705 | 4 | X A | 22-3471022-30-14 | CAP ELEC RX 47uF 16V 20% RAD BULK 2RX1C-B477MCS10020 | SAM-HWA | 1 |
| 467 | C705 | 4 | X A | 22-3471022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST5 BULK SM1C471MXXN10125 | ELITE | 1 |
| 468 | C705 | 4 | X A | 22-3471022-00-00 | CAP ELEC GS 47uF 16V 20% RAD ST5 BULK GS471M016G130CXC | CAPXON | 1 |
| 469 | C711 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 470 | C711 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXXN0511CXC | ELITE | 1 |
| 471 | C711 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 472 | C800 | 4 | X P | 22-4422112-20-05 | CAP M P PROP XG-VS 0.22uF 20% 250V AC | TEAPO | 1 |
| 473 | C801 | 4 | X P | 22-4410140-20-05 | CAP M P PROP XG-VS 0.1uF 20% 250VAC | TEAPO | 1 |
| 474 | C804 | 4 | X P | 22-3680162-00-15 | CAP ELEC KL 68u 450V 20% RAD BULK 3KL2VW686M1C22035 | SAM-HWA | 1 |
| 475 | C804 | 4 | X A | 22-3680162-00-20 | CAP ELEC LG2A 68uF 450V 20% RAD BULK LG2A/650/68M-22B | TOSIN | 1 |
| 476 | C805 | 4 | X A | 22-3221032-00-18 | CAP ELEC KR1 220uF 25V 20% RAD ST5 BULK KR1-25V221MC | KOSHIN | 1 |
| 477 | C805 | 4 | X P | 22-3221032-00-09 | CAP ELEC GS 220uF 25V 20% RAD ST3.5 BULK GS221M025F120CXC | CAPXON | 1 |
| 478 | C805 | 4 | X A | 22-3221032-00-08 | CAP ELEC SM 220uF 25V ±20% 85°C VER BULK | YEC | 1 |
| 479 | C806 | 4 | X P | 22-13313650-09-21 | CAP CER HR 330pF 1KV 10% SL RAD ST5 BULK DE5115-979 SL 331J1K | MURATA | 1 |
| 480 | C807 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 481 | C807 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% ZSV/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 482 | C807 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14ZSV | GUIDING | 1 |
| 483 | C808 | 4 | X A | 22-4110203-10-17 | CAP MYLAR Q92M 1000pF 100V 10% RAD BULK | DAE-HUNG | 1 |
| 484 | C808 | 4 | X P | 22-4110203-10-10 | CAP MYLAR KF-G 1000pF 100V 10% RAD ST3.5 BULK | HYOCHUN | 1 |
| 485 | C810 | 4 | X P | 22-3106052-00-00 | CAP ELEC GS 1p 20% 50V RAD ST2.5 BULK GS10M050C110CXC | CAPXON | 1 |
| 486 | C810 | 4 | X A | 22-3106052-00-18 | CAP ELEC KR1 1uF 50V 20% RAD BULK KR1-50V010MA | KOSHIN | 1 |
| 487 | C811 | 4 | X P | 22-1102150-30-11 | CAP CER CKU06 1000PF 10% 50V Y5E RAD ST5CKU06Y5E102KL45AE | GUIDING | 1 |
| 488 | C811 | 4 | X A | 22-1102150-09-01 | CAP CER CCU05 1nF 10% 50V SL RAD ST5 BULK CCU05SL102KL45AE | GUIDING | 1 |
| 489 | C811 | 4 | X A | 22-1102150-17-23 | CAP CER HK 1000pF 50V ±10% B RAD ST2.5 BULK HKB102K502 | BIL | 1 |
| 490 | C812 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 491 | C812 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% ZSV/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 492 | C812 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V ZSV RAD ST5 BULK CKU14ZSV | GUIDING | 1 |
| 493 | C813 | 4 | X P | 22-3331042-30-14 | CAP ELEC RX 330uF 35V 20% RAD BULK 2RX1V-B337MCS10025 | SAM-HWA | 1 |
| 494 | C813 | 4 | X A | 22-3331042-30-21 | CAP ELEC RX 330uF 35V ±20% RAD 105°C BULK RSG-35V331MS53 | ELNA | 1 |
| 495 | C814 | 4 | X P | 22-3471032-30-14 | CAP ELEC RX 470uF 25V 20% RAD BULK 2RX1V-B477MCS10030 | SAM-HWA | 1 |
| 496 | C814 | 4 | X A | 22-3471032-30-21 | CAP ELEC RSG 470uF 25V ±20% RAD 105°C BULK RSG-25V471MS53 | ELNA | 1 |
| 497 | C815 | 4 | X P | 22-3222012-30-14 | CAP ELEC RX 2200uF 10V 20% RAD BULK 2RX1A-B228MCS13025 | SAM-HWA | 1 |
| 498 | C815 | 4 | X A | 22-3222012-30-21 | CAP ELEC RSG 2200uF 10V ±20% RAD 105°C BULK RSG-10V222MS63 | ELNA | 1 |
| 499 | C816 | 4 | X P | 22-3101042-30-14 | CAP ELEC RX 100uF 35V 20% RAD BULK 2RX1V-B107MCS1012M | SAM-HWA | 1 |
| 500 | C816 | 4 | X A | 22-3101042-30-21 | CAP ELEC RSG 100uF 35V ±20% RAD 105°C BULK RSG-35V101MS41 | ELNA | 1 |
| 501 | C817 | 4 | X P | 22-1102150-30-11 | CAP CER CKU06 1000PF 10% 50V Y5E RAD ST5CKU06Y5E102KL45AE | GUIDING | 1 |
| 502 | C817 | 4 | X A | 22-1102150-09-01 | CAP CER CCU05 1nF 10% 50V SL RAD ST5 BULK CCU05SL102KL45AE | GUIDING | 1 |
| 503 | C817 | 4 | X A | 22-1102150-17-23 | CAP CER HK 1000pF 50V ±10% B RAD ST2.5 BULK HKB102K502 | BIL | 1 |
| C818 | | 4 | X A | 22-1102150-17-23 | CAP CER HK 1000pF 50V ±10% B RAD ST2.5 BULK HKB102K502 | GUIDING | 1 |
| 504 | C818 | 4 | X P | 22-1102150-30-11 | CAP CER CKU06 1000PF 10% 50V Y5E RAD ST5CKU06Y5E102KL45AE | GUIDING | 1 |
| 505 | C818 | 4 | X A | 22-1102150-09-01 | CAP CER CCU05 1nF 10% 50V SL RAD ST5 BULK CCU05SL102KL45AE | GUIDING | 1 |
| 506 | C819 | 4 | X A | 22-1102150-17-23 | CAP CER HK 1000pF 50V ±10% B RAD ST2.5 BULK HKB102K502 | BIL | 1 |
| 507 | C819 | 4 | X A | 22-1102150-09-01 | CAP CER CCU05 1nF 10% 50V SL RAD ST5 BULK CCU05SL102KL45AE | GUIDING | 1 |
| 508 | C819 | 4 | X P | 22-1102150-30-11 | CAP CER CKU06 1000PF 10% 50V Y5E RAD ST5CKU06Y5E102KL45AE | GUIDING | 1 |
| 509 | C820 | 4 | X A | 22-1102150-09-24 | CAP CER TC 100pF 50V ±10% SL RAD ST2.5 BULK TCSL100K502 | BIL | 1 |
| 510 | C820 | 4 | X P | 22-1102150-09-01 | CAP CER CCU05 100pF 50V 10% SL RAD ST5 BULK CCU05SL101KL45AE | GUIDING | 1 |

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|-----|------|---|-----|------------------|--|---------|---|
| 250 | C229 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| | C230 | 4 | X P | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 251 | C230 | 4 | X A | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 252 | C230 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 253 | C231 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 254 | C231 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 255 | C231 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 256 | C232 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 257 | C232 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 258 | C232 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 259 | C233 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 260 | C233 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 261 | C233 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| | C234 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 262 | C234 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 263 | C234 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| | C235 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 264 | C235 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 265 | C235 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| | C236 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 266 | C236 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 267 | C236 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 268 | C239 | 4 | X A | 22-1561150-00-24 | CAP CER TC 500pF 50V ±10% SL RAD ST5 BULK TCSL561K50 | BIL | 1 |
| 269 | C239 | 4 | X P | 22-1561150-00-36 | CAP CER CKU08 550pF 10% 50V Y5E RAD ST5 BULK CKU05Y5E561KL | GUIDING | 1 |
| 270 | C240 | 4 | X P | 22-104180-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 271 | C240 | 4 | X A | 22-104170-31-12 | CAP CER CKU14 0.1uF +80/-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 272 | C240 | 4 | X A | 22-104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% 50V Z5V RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 273 | C241 | 4 | X A | 22-1471150-30-16 | CAP CER CKU05 470pF 10% 50V Y5E RAD ST5 BULK CKU05Y5E471KL45CE | GUIDING | 1 |
| 274 | C241 | 4 | X P | 22-1471150-00-08 | CAP CER CCU10 470pF 10% 50V Y5E RAD ST5 BULK CCU10SL171KL45AE | GUIDING | 1 |
| 275 | C241 | 4 | X A | 22-1471150-00-24 | CAP CER TC 470pF 50V ±10% SL RAD ST5 BULK TCSL471K50 | BIL | 1 |
| 276 | C242 | 4 | X P | 22-1151150-00-15 | CAP CER CCU06 150pF 10% 50V SL RAD ST2.5 BULK CCL06SL151KL | GUIDING | 1 |
| 277 | C242 | 4 | X A | 22-1151150-00-24 | CAP CER TC 150pF 50V ±10% SL RAD ST2.5 BULK TCSL151K502 | BIL | 1 |
| 278 | C253 | 4 | X A | 22-3221022-00-18 | CAP ELEC KR1 220uF 16V ±20% RAD BULK KR1-16V221MC | KOSHIN | 1 |
| 279 | C253 | 4 | X A | 22-3221022-00-02 | CAP ELEC SM 220uF 16V 20% RAD ST2.5 BULK SM1C221MXNN0812 | ELITE | 1 |
| 280 | C253 | 4 | X P | 22-3221022-00-08 | CAP ELEC SM 220uF 16V 20% VER BULK | YEC | 1 |
| 281 | C256 | 4 | X P | 22-1221150-00-10 | CAP CER CCU08 220p 50V 10% SL RAD ST5 BULK CCU08SL221KL45A | GUIDING | 1 |
| 282 | C256 | 4 | X A | 22-1221150-00-24 | CAP CER TC 220pF 50V ±10% SL RAD ST2.5 BULK TCSL221K502 | BIL | 1 |
| 283 | C257 | 4 | X A | 22-103160-28-23 | CAP CER HK 10nF 50V ±20% ZSU RAD ST5 BULK HKE103MS05 | BIL | 1 |
| 284 | C257 | 4 | X P | 22-103160-28-11 | CAP CER CKU06 10nF 20% 50V ZSU RAD ST5 BULK CKU06Z5U103ML4 | GUIDING | 1 |
| 285 | C259 | 4 | X P | 22-3106052-00-00 | CAP ELEC GS 1uF 50V 20% RAD ST2.5 BULK GS010M050C110XC | CAPXON | 1 |
| 286 | C260 | 4 | X A | 22-104170-31-12 | CAP CER CRKU14 0.1uF 50V +80/-20% 50V Z5V RAD ST5 BULK CRKU14Z5V | GUIDING | 1 |
| 287 | C260 | 4 | X A | 22-104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% 50V Z5V RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 288 | C260 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 289 | C301 | 4 | X A | 22-1680150-00-12 | CAP CER TC 150pF 50V ±10% NPO RAD ST2.5 BULK TCSL151K502 | BIL | 1 |
| 290 | C301 | 4 | X P | 22-1680150-00-09 | CAP CER CRKU05 68pF 10% 50V SL RAD ST2.5 BULK CCU05SL680K | GUIDING | 1 |
| 291 | C302 | 4 | X A | 22-1680150-01-24 | CAP CER TC 68pF 50V ±10% NPO RAD ST2.5 BULK TCSL0680K502 | BIL | 1 |
| 292 | C302 | 4 | X P | 22-1680150-09-01 | CAP CER CRKU05 68pF 10% 50V SL RAD ST2.5 BULK CCU05SL680K | GUIDING | 1 |
| 293 | C303 | 4 | X P | 22-1101150-00-09 | CAP CER CCU05 100pF 50V 10% SL RAD ST5 BULK CCU05SL101KL45 | GUIDING | 1 |
| 294 | C303 | 4 | X A | 22-1101150-00-24 | CAP CER TC 100pF 50V ±10% SL RAD ST2.5 BULK TCSL100K502 | BIL | 1 |
| 295 | C304 | 4 | X A | 22-1151150-00-12 | CAP CER CRKU14 0.1uF 50V ±10% SL RAD ST2.5 BULK TCSL151K502 | BIL | 1 |
| 296 | C304 | 4 | X P | 22-1151150-00-15 | CAP CER CCU06 150pF 10% 50V SL RAD ST2.5 BULK CCU06SL151KL | GUIDING | 1 |
| 297 | C305 | 4 | X P | 22-1101150-00-01 | CAP CER CCU05 100pF 50V 10% SL RAD ST5 BULK CCU05SL101KL45 | GUIDING | 1 |
| 298 | C305 | 4 | X A | 22-1101150-00-24 | CAP CER TC 100pF 50V ±10% SL RAD ST2.5 BULK TCSL100K502 | BIL | 1 |
| 299 | C306 | 4 | X P | 22-1101160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 300 | C306 | 4 | X A | 22-1101160-31-23 | CAP CER HK 0.1uF 50V +80/-20% 50V Z5V RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 301 | C306 | 4 | X A | 22-104170-31-12 | CAP CER CRKU14 0.1uF 50V +80/-20% 50V Z5V RAD ST5 BULK CRKU14Z5V | GUIDING | 1 |
| 302 | C307 | 4 | X A | 22-1390150-01-24 | CAP CER CR 39pF ±10% 50V NPO Bulk RAD ST5 TCSNPO390K505 | BIL | 1 |
| 303 | C307 | 4 | X P | 22-1390150-01-01 | CAP CER CCU05 39pF 10% 50V NPO RAD ST2.5 BULK CCU05NPO390 | GUIDING | 1 |
| 304 | C311 | 4 | X A | 22-1101160-31-23 | CAP CER HK 0.1uF 50V +80/-20% 50V Z5V RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 305 | C311 | 4 | X P | 22-1101160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 306 | C311 | 4 | X A | 22-1101170-31-12 | CAP CER CRKU14 0.1uF +80/-20% 50V Z5V RAD ST5 BULK CRKU14Z5V | GUIDING | 1 |
| 307 | C312 | 4 | X P | 22-1101160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 308 | C312 | 4 | X A | 22-104160-31-23 | CAP CER HK 0.1uF 50V +80/-20% 50V Z5V RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 309 | C312 | 4 | X A | 22-1101170-31-12 | CAP CER CRKU14 0.1uF +80/-20% 50V Z5V RAD ST5 BULK CRKU14Z5V | GUIDING | 1 |
| 310 | C313 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V 20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 311 | C313 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 312 | C313 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 313 | C315 | 4 | X A | 22-1102150-17-23 | CAP CER HK 1000pF 50V ±10% B RAD ST2.5 BULK HKB102K502 | BIL | 1 |
| 314 | C315 | 4 | X P | 22-102150-30-11 | CAP CER CCU06 1000pF 10% 50V Y5E RAD ST5CKU06Y5E102KL45AE | GUIDING | 1 |
| 315 | C316 | 4 | X P | 22-3100052-00-00 | CAP ELEC GS 1uF 50V 20% RAD ST2.5 BULK GS010M050C110XC | CAPXON | 1 |
| 316 | C317 | 4 | X P | 22-4182303-10-10 | CAP MYLAR KT-G 0.082uF 100V 10% RAD ST6.5 BULK KT-G823K100V | HYOCHUN | 1 |
| 317 | C317 | 4 | X A | 22-4182303-10-10 | CAP MYLAR KT-G 0.082uF 100V 10% RAD ST6.5 BULK KT-G823K100V | HYOCHUN | 1 |
| 318 | C318 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 319 | C318 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 320 | C318 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 321 | C319 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 322 | C319 | 4 | X A | 22-1104160-31-23 | CAP CER CRKU14 0.1uF 50% RAD ST5 BULK CRKU14Z5V | BIL | 1 |
| 323 | C319 | 4 | X A | 22-104170-31-12 | CAP CER CRKU14 0.1uF +80/-20% 50V Z5V RAD ST5 BULK CRKU14Z5V | GUIDING | 1 |
| 324 | C320 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 325 | C320 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 326 | C320 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 327 | C321 | 4 | X P | 22-4182303-10-10 | CAP MYLAR KT-G 0.082uF 100V 10% RAD ST6.5 BULK KT-G823K100V | HYOCHUN | 1 |
| 328 | C321 | 4 | X A | 22-4182303-10-10 | CAP MYLAR KT-G 0.082uF 100V 10% RAD ST6.5 BULK KT-G823K100V | HYOCHUN | 1 |
| 329 | C322 | 4 | X P | 22-4147303-10-10 | CAP MYLAR KT-G 0.047uF 100V 10% RAD ST6.5 BULK | HYOCHUN | 1 |
| 330 | C322 | 4 | X A | 22-4147303-10-17 | CAP MYLAR CQ02M 47nF 100V 10% RAD BULK | DAEHUNG | 1 |
| 331 | C323 | 4 | X P | 22-4122303-10-10 | CAP MYLAR KT-G 0.022uF 100V 10% RAD ST6.5 BULK KT-G223K100V | HYOCHUN | 1 |
| 332 | C323 | 4 | X A | 22-4122303-10-17 | CAP MYLAR CQ02M 0.022uF 100V 10% RAD BULK | DAEHUNG | 1 |
| 333 | C324 | 4 | X A | 22-3100022-00-02 | CAP ELEC SM 10uF 16V ±20% RAD ST2.5 BULK SM1CR100MXNN0511 | ELITE | 1 |
| 334 | C324 | 4 | X A | 22-3100022-00-19 | CAP ELEC KR2 10uF 16V 20% RAD BULK KR2-16V100MA | KOSHIN | 1 |
| 335 | C324 | 4 | X P | 22-3100022-00-08 | CAP ELEC SM 10uF 16V ±20% 85°C VER BULK | YEC | 1 |

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|-----|--------------|---|-----|------------------|---|----------------------|-------|
| 74 | REMOTE CABIN | 2 | X P | 13-0200500-24-00 | SELF TAPING SCREW Y2 X 5 PH TYPE "B" BLK PLT | TEO CHEOW SENG/MELCO | 1 |
| 75 | REMOTE CABIN | 2 | X P | 13-0260000-24-00 | SELF TAPING SCREW Y2.6 X 6 PH TYPE "B" BLK PLT | MELCO | 1 |
| 76 | | 1 | P | 60-4131120-10-00 | GIFT BOX JTE 41 X 31 X 12cm W/O HANDLE 400LB BROWN R.O BINATONE | | 1 |
| 77 | | 1 | X P | 64-0040008-00-00 | POLYBAG WITH SILKSCREEN (431 X 457mm) | | 1 |
| 78 | | 1 | X P | 17-0950011-00-13 | LLCSA PVC TUBE 105°C 300V (ID9.5mm X L1mm) DC-3 | ANY | 50 mm |
| 79 | | 1 | P | 67-0070000-00-09 | CARTON BOX JTE "BINATONE" | | 0.2 |
| 80 | | 1 | P | 00-0000707-00-00 | PRODUCT ASSY JTE REV.0 MAIN UNIT (ES2000 BINATONE) | | |
| 81 | | 1 | P | 90-0000707-00-01 | PRODUCT ASSY JTE REV.0 REMOTE (ES2000 BINATONE) | | |
| 82 | | 1 | P | 63-0070002-00-01 | POLYFOAM W/REMOTE CONTROL JTE R.1 | | 1 |
| 83 | | 1 | P | 64-0080001-00-00 | POLYBAG REMOTE JB 270 X 80mm R.0 | | 1 |
| 84 | | 1 | P | 74-0000707-00-00 | EEPROM FIRM WIRE JTE REV. 0 (ES2000 BINATONE) | | 1 |
| 85 | | 1 | P | 63-0070001-00-00 | POLYFOAM JTE R.0 | | 1 |
| 86 | | 1 | P | 36-1200142-50-28 | SHIEL CABLE 3C-2V L=1430mm BLACK W/2PIN PLUG | COULOMB | 1 |
| 87 | | 0 | P | 95-0000707-00-07 | SAT JTE REV.0 SAT RECEIVER (ES2000 BINATONE) | | |
| 88 | | 1 | P | 55-1070030-11-03 | PCB FRONT BOARD J7 SS FR2 (94V0) 1.6mm R.1, | | 1 |
| 89 | | 1 | P | 55-1070010-11-04 | PCB MAIN BOARD J7 SS FR2 (94V0) 1.6mm R.1, | | 1 |
| 90 | | 1 | P | 55-1070025-11-04 | SMPs BD (XPC) SS | | 1 |
| 91 | | 4 | P | 11-0070108-00-00 | SHIELDING BOX JTE ZINC R.0,0 | | 1 |
| 92 | | 4 | P | 11-0070088-00-00 | HEAT SINK (12 X 18) JTE GP 1.2mm R.0,0 | | 1 |
| 93 | C109 | 4 | X A | 22-3477052-00-18 | CAP ELEC KR1 0.47uF 50V 20% RAD ST5 BULK KR1-50VR47MA | KOSHIN | 1 |
| 94 | C109 | 4 | X P | 22-3477052-00-00 | CAP ELEC GS 0.47uF 50V 20% RAD ST 2.5 BULK GSR47M050C110CX | CAPXON | 1 |
| 95 | C110 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 96 | C110 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 97 | C110 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511CX | EUTE | 1 |
| 98 | C111 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 99 | C111 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 100 | C111 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 101 | C112 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511CX | ELITE | 1 |
| 102 | C112 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 103 | C112 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 104 | C113 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 105 | C113 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 106 | C113 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 107 | C114 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 108 | C114 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 109 | C114 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 110 | C115 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 111 | C115 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 112 | C115 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511CX | ELITE | 1 |
| 113 | C116 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 114 | C116 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 115 | C116 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 116 | C117 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 117 | C117 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 118 | C119 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511CX | ELITE | 1 |
| 119 | C120 | 4 | X P | 22-1821150-09-01 | CAP CER CCU05 820pF 10% 50V SL RAD ST2.5 BULK CCU05SLB21KL45CE | GUIDING | 1 |
| 120 | C120 | 4 | X A | 22-1821150-09-24 | CAP CER TC 820pF 50V ±10% SL RAD ST5 BULK TCSL821K505 | BIL | 1 |
| 121 | C121 | 4 | X A | 22-1711150-30-16 | CAP CER CKU05 470pF 10% 50V Y5E RAD ST5 BULK CKU05Y5E471KL45CE | GUIDING | 1 |
| 122 | C121 | 4 | X A | 22-1471150-09-24 | CAP CER TC 470pF 50V ±10% SL RAD ST5 BULK TCSL471K505 | BIL | 1 |
| 123 | C121 | 4 | X P | 22-1471150-09-08 | CAP CER CKU10 470pF 10% 50V SL RAD ST5 BULK CCU10SL471KL45AE | GUIDING | 1 |
| 124 | C122 | 4 | X P | 22-1211150-09-01 | CAP CER CCU05 120pF 10% 50V SL RAD ST2.5 BULK CCU05SL121 | GUIDING | 1 |
| 125 | C122 | 4 | X A | 22-1211150-09-24 | CAP CER TC 120pF 50V ±10% SL RAD ST2.5 BULK TCSL121K502 | BIL | 1 |
| 126 | C123 | 4 | X P | 22-1221150-09-10 | CAP CER CCU08 220pF 50V 10% SL RAD ST5 BULK CCU08SL221KL45A | GUIDING | 1 |
| 127 | C123 | 4 | X A | 22-1221150-09-24 | CAP CER TC 220pF 50V ±10% SL RAD ST2.5 BULK TCSL221K502 | BIL | 1 |
| 128 | C124 | 4 | X A | 22-1181150-09-24 | CAP CER TC 180pF 50V ±10% SL RAD ST2.5 BULK TCSL181K502 | BIL | 1 |
| 129 | C124 | 4 | X P | 22-1181160-09-15 | CAP CER CCU06 180pF ±10% 50V SL RAD ST2.5 BULK CCU06SL1 | GUIDING | 1 |
| 130 | C125 | 4 | X A | 22-1331150-09-24 | CAP CER TC 330pF 50V ±10% SL RAD ST2.5 BULK TCSL331K502 | BIL | 1 |
| 131 | C125 | 4 | X P | 22-1331150-09-10 | CAP CER CCU08 330pF 10% 50V SL RAD ST5 BULK CCU08SL331KL45A | GUIDING | 1 |
| 132 | C126 | 4 | X A | 22-1711150-30-16 | CAP CER CKU05 470pF 10% 50V Y5E RAD ST5 BULK CKU05Y5E471KL45CE | GUIDING | 1 |
| 133 | C126 | 4 | X A | 22-1711150-09-24 | CAP CER CKU10 470pF 10% 50V SL RAD ST5 BULK CKU10Y5E471KL45AE | BIL | 1 |
| 134 | C126 | 4 | X P | 22-1471150-09-08 | CAP CER CCU08 220pF 10% 50V SL RAD ST2.5 BULK CCU08SL221KL45A | GUIDING | 1 |
| 135 | C127 | 4 | X P | 22-1221150-09-10 | CAP CER CCU08 330pF 10% 50V SL RAD ST2.5 BULK CCU08SL331KL45A | BIL | 1 |
| 136 | C127 | 4 | X A | 22-1221150-09-24 | CAP CER TC 220pF 50V ±10% SL RAD ST2.5 BULK TCSL221K502 | GUIDING | 1 |
| 137 | C128 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 138 | C128 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 139 | C128 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511CX | ELITE | 1 |
| 140 | C129 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 141 | C129 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 142 | C130 | 4 | X A | 22-1222160-28-23 | CAP CER HK 2.2nF 50V ±20% Z5V/F RAD ST2.5 BULK HKF104M507 | BIL | 1 |
| 143 | C130 | 4 | X P | 22-1222160-28-16 | CAP CER CKU05 2.2nF 20% 50V Z5U RAD ST5 BULK CKU05Z5U222ML | GUIDING | 1 |
| 144 | C131 | 4 | X P | 22-3470022-00-08 | CAP ELEC SM 47uF 16V ±20% 85°C VER BULK | YEC | 1 |
| 145 | C131 | 4 | X A | 22-3470022-00-02 | CAP ELEC SM 47uF 16V 20% RAD ST2.5 BULK SM1C470MXNN0511CX | ELITE | 1 |
| 146 | C131 | 4 | X A | 22-3470022-00-19 | CAP ELEC KR2 47uF 16V 20% RAD BULK KR2-16V470MB | KOSHIN | 1 |
| 147 | C134 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 148 | C134 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 149 | C134 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 150 | C136 | 4 | X P | 22-3100052-00-19 | CAP ELEC KR2 10uF 50V 20% RAD BULK KR2-50V100MC | KOSHIN | 1 |
| 151 | C136 | 4 | X A | 22-3100052-00-02 | CAP ELEC SM 10uF 50V ±20% RAD ST2.5 BULK SM1H100MXNN051 | ELITE | 1 |
| 152 | C137 | 4 | X P | 22-1104160-28-18 | CAP CER CGB08 0.1uF 20% ZSU RAD ST5 BULK CG08Z50104KL45CE | GUIDING | 1 |
| 153 | C137 | 4 | X A | 22-1104160-31-23 | CAP CER HK 0.1uF 50V +80-20% Z5V/F RAD ST7.5 BULK HKF104M507 | BIL | 1 |
| 154 | C137 | 4 | X A | 22-1104170-31-12 | CAP CER CKU14 0.1uF +80-20% 50V Z5V RAD ST5 BULK CKU14Z5V | GUIDING | 1 |
| 155 | C138 | 4 | X A | 22-3102012-00-18 | CAP ELEC KR1 1000uF 10V 20% RAD ST10 KR1-10V102ME | KOSHIN | 1 |
| 156 | C138 | 4 | X A | 22-3102012-00-24 | CAP ELEC SG 1000uF 10V 20% RAD ST5 2SG1AVAB108M | SAM-HWA | 1 |
| 157 | C138 | 4 | X P | 22-3102012-00-00 | CAP ELEC GS 1000uF 10V 20% RAD ST5 BULK GS102M010G130CX | CAPXON | 1 |
| 158 | C139 | 4 | X A | 22-3102012-00-18 | CAP ELEC KR1 1000uF 10V 20% RAD ST10 KR1-10V102ME | KOSHIN | 1 |
| 159 | C139 | 4 | X A | 22-3102012-00-24 | CAP ELEC SG 1000uF 10V 20% RAD ST5 2SG1AVAB108M | SAM-HWA | 1 |
| 160 | C139 | 4 | X P | 22-3102012-00-00 | CAP ELEC GS 1000uF 10V 20% RAD ST5 BULK GS102M010G130CX | CAPXON | 1 |
| 161 | C140 | 4 | A | 22-3221022-00-18 | CAP ELEC KR1 220uF 16V ±20% RAD ST2.5 BULK SM1C221MXNN0812 | KOSHIN | 1 |
| 162 | C140 | 4 | X A | 22-3221022-00-02 | CAP ELEC SM 220uF 16V 20% RAD BULK KR1-16V221MC | ELITE | 1 |
| 163 | C140 | 4 | X P | 22-3221022-00-08 | CAP ELEC SM 220uF 16V 20% VER BULK | YEC | 1 |
| 163 | C140 | 4 | X P | 22-3221022-00-08 | CAP ELEC SM 220uF 16V 20% VER BULK | YEC | 1 |

- I) LNB voltage and short circuit protection testing
- A) 13/17V testing
- Switch on unit
 - Connect a voltage meter and 50 ohm load on the tuner LNB output
 - Select VERT polarization, the output should be 13V +/- 0.5V
 - Select HORIZONTAL polarization, the output should be 17V +/- 0.5V
- B) 22KHz testing
- Connect a oscilloscope to the tuner LNB output
 - Switch to High band, check LNB band control signal (22+/-4KHz, 0.6+/-0.2V, Duty50+/-10%)
- C) short circuit protection testing
- Short the tuner LNB output power
 - The unit will return to stand-by mode
 - Switch on unit, the LNB power will appear again

IV) J7E Scart pin assignment table

| Scart VCR | Scart TV | Scart Decoder |
|------------------|-------------------|------------------------|
| audio out R | audio out R | audio out R |
| audio in R | nc | audio in R |
| audio out L | audio out L | audio out L |
| gnd | gnd | gnd |
| gnd | gnd | gnd |
| audio in L | nc | audio in L |
| nc | blue | blue |
| function sw.(in) | function sw.(out) | function sw.(in) |
| gnd | gnd | gnd |
| nc | nc | video unclamp unfilter |
| nc | green | green |
| nc | nc | base band |
| gnd | gnd | gnd |
| gnd | gnd | gnd |
| nc | red | red |
| nc | fast blank | fast blank |
| gnd | gnd | gnd |
| gnd | gnd | gnd |
| video out | video out | video out |
| video in | nc | video in |
| gnd | gnd | gnd |

(V) IQC major components testing:

- A) Tuner testing:
- Connect +5V and +27V power supply to tuner pin 12, 14
 - Connect IF signal to tuner F plug
 - Connect pin 17,18 to a computer IIC bus interface
 - Connect B/B output pin 5 to a receiver tuner B/B input
 - Check the AFC range 'lock in' = 1 MHz +/- 300KHz
 'lock out' = 1.4 MHz +/- 400KHz
 - Check the tuning range 950 to 2050 MHz
 - Check AGC output -25 dBm = 0.7 V +/- 0.2V
 -63 dBm = 2.3 V +/- 0.2V

B) Switching transformer testing:

- Safety parameter testing
- Check the inductance of the all rounding

C) Modulator testing:

- Same as the testing procedure G)

B) Input voltage range testing:

- a) Connect the same loading as A) to the power supply
- b) Set the AC input voltage to 160V
- c) Check the output voltage as A),c)
- d) Change the loading to
 - pin 3 5.1ohm 10W
 - pin 4 18 ohm 10W
 - pin 5 open
 - pin 7 open
- e) Check the output voltage as A),c)

2) Remote control testing

- a) Check the receiving distance with a standard receiver > 10Meter
- b) Check all remote key function

3) Front panel board testing

- i) IR. receiver testing
 - a) Check the receiving distance with a standard remote control > 10 Meter
- ii) LED testing
 - a) Connect the Front panel board to a dummy unit
 - b) Switch on the unit
 - c) Select the test mode by remote control
 - d) Select the LED testing row
 - e) Use +/- keys to check all LED segments
- iii) Key board testing
 - a) Check all keys function with a standard receiver

4) Main chassis testing

A) OSD testing

- a) Connect a vector scope to Scart TV video output pin 19
- b) Switch on the unit and disconnect IF input signal
- c) Check the vector display stop rotate and indicate PAL system
- d) Receive a PAL signal and turn on the audio menu
- e) Check the OSD on the center position

B) Base band output testing

- a) Connect IF input signal to tuner
 - (16MHz dev, PAL, positive, audio L=7.38 1K, 50KHz dev
R=7.56 1K, 50KHz dev)
- b) Select a pre-set channel (video high, positive)
- c) Check all Base band output level with 75 ohm load, 1Vp-p +/- 0.1V
 - Scart decoder pin 12 (Base band output)
 - Scart decoder pin 10 (Dc emphasis base band output)

C) Video output testing

- a) Do the same setup as A) & B)
- b) Check all video output level with 75 ohm load, 1Vp-p +/- 0.1V
 - Scart VCR pin 19
 - Scart TV pin 19
 - Scart Decoder pin 19
- c) Set VIDEO LEVEL to LOW
- d) Check video output should be 0.76Vp-p +/- 0.1V

E) SWITCHING POWER SUPPLY

< Warning 2 >: A line isolation transformer must be used during the service.

< Warning 1 >: It is better to use a dummy load to service the switching power supply, otherwise some expansive components on the main PCB may be damaged during the service.

The dummy loads are listed as follow:

- pin 1 : gnd.
- pin 2 : short to gnd.
- pin 3 : 5.1 Ohm to gnd.
- pin 4 : 18 Ohm to gnd.
- pin 5 : 220 Ohm to gnd.
- pin 6 : short to gnd.
- pin 7 : 56 Ohm to gnd.
- pin 8 : nc.

(1) If power supply cannot start up.

(a) Measure the voltage at following points. If the voltage is different, please check and replace the following parts.

| Test point | Normal voltage | Check/Replace |
|-----------------------|----------------|---------------------------------|
| D800 '+' to hot gnd | > 260 Vdc | Items between AV. plug and D800 |
| D802 anode to hot gnd | > 260 Vdc | R804 |
| U801 pin 7 | + 12 Vdc | R802, D801 |

(b) Check Q801 and replace it.

(c) Check any open or short circuit on the PCB.

(2) If power supply output flashing.

(a) Measure the voltage at following points. If the voltage is different, please check and replace the following parts.

| Test point | Normal voltage | Check/Replace |
|-----------------------|----------------|------------------------|
| D808 anode to gnd | 5.9 Vdc | D808, C815 |
| D807 anode to gnd | 13.9 Vdc | D807, C814 |
| D806 anode to gnd | 33.5 Vdc | D806, C813 |
| D801 anode to hot gnd | 12 Vdc | D801, C805 |
| J802 pin 7 to gnd | 14/18Vdc | Q802, D809, L802, C816 |

(b) Check and replace U802(opto-coupler) and U803(TL431)

(c) Check any open or short circuit on the PCB.

(3) Without the 13/17 voltage control (J802 pin 6).

(a) Check R839 (12K 1%), R836 (27K 1%)

(b) Check R837 (1K), Q805 (2SC1815Y)

(4) Without the 13/17 voltage on/off control (J802 pin 2).

(a) Check R834, Q804, R833

(5) Without LNB power supply (J802 pin 7).

(a) Check Q802, D809, L802

(6) Without +12 Volt (J802 pin 4).

(a) Check Q807 U804B

C) AUDIO CIRCUIT

(1) No scart TV sound output or noisy sound.

Connect IF input signal to the tuner, and setup a correct channel setting for both video and audio.

Check the +5V supply of U301 pin 26, 16 first.

(a) Check scart DECODER audio output pin 1,3 and Q303, Q302 emitter.

OK, check U203, Q211, Q212

No good, do the next.

(b) Check U303 pin 3, 13 audio output

OK, check Q303, Q302

No good, do the next.

(c) Switch to stereo mode, Check U302 pin 4, 11 audio signal

OK, check U303.

No good, do the next.

(d) Check TP4, 5 emphasized audio.

OK, check U302.

No good, do the next.

(e) Check C355 audio subcarrier input waveform.

OK, i) Re-align the IFT303, 302 following the alignment instruction.

ii) Check the ceramic filter CF302, 303, 304, 305.

iii) Check D301, and any open or circuit point.

iv) Check U301 pin 27,28 IIC bus, 4MHz clock.

iv) Replace U301.

No good, check Q301, Q342, and base band signal of Q112 emitter, if no signal at all then follow video circuit instruction (1) start from (c).

(f) Switch to mono audio mode, check TP3.

OK, check U303.

No good, do the next.

(g) Check C355 audio subcarrier input waveform.

OK, i) Re-align the IFT301 following the alignment instruction.

ii) Check the ceramic filter CF301.

iii) Check D301, and any open or circuit point.

iv) Check U301 pin 27, 28 IIC bus and pin 1, 4MHz clock.

iv) Replace U301.

No good, check Q301, Q342, and base band signal of Q112 emitter, if no signal at all then follow video circuit instruction (1) start from (c).

TROUBLE SHOOTING GUIDE

A) GENERAL TROUBLE SHOOTING

(1) The receiver will not power up

(a) No power at all

- i) Check fuse
- ii) Check power cord/plug
- iii) Check switching power supply.

(b) Stand-by LED is flashing, but receiver can not be switched on.

- i) Check CPU reset circuit.
- ii) Check switching power supply.

(c) Stand-by LED is flashing. Switching on the unit, it automatically turn off.

- i) Check the LNB supply voltage on tuner IF input Plug.
- ii) If LNB voltage is 13 or 17 volt, check R420, Z405, R421 and Z402 on the main PCB.
- iii) No LNB voltage. Check switching power supply.

(d) Check CPU control circuit.

(2) No picture output

(a) Without blue background

- i) Check OSD IC (U202) on main PCB.
- ii) Check video output buffer Q209, Q210 on main PCB.
- iii) Check video circuit.

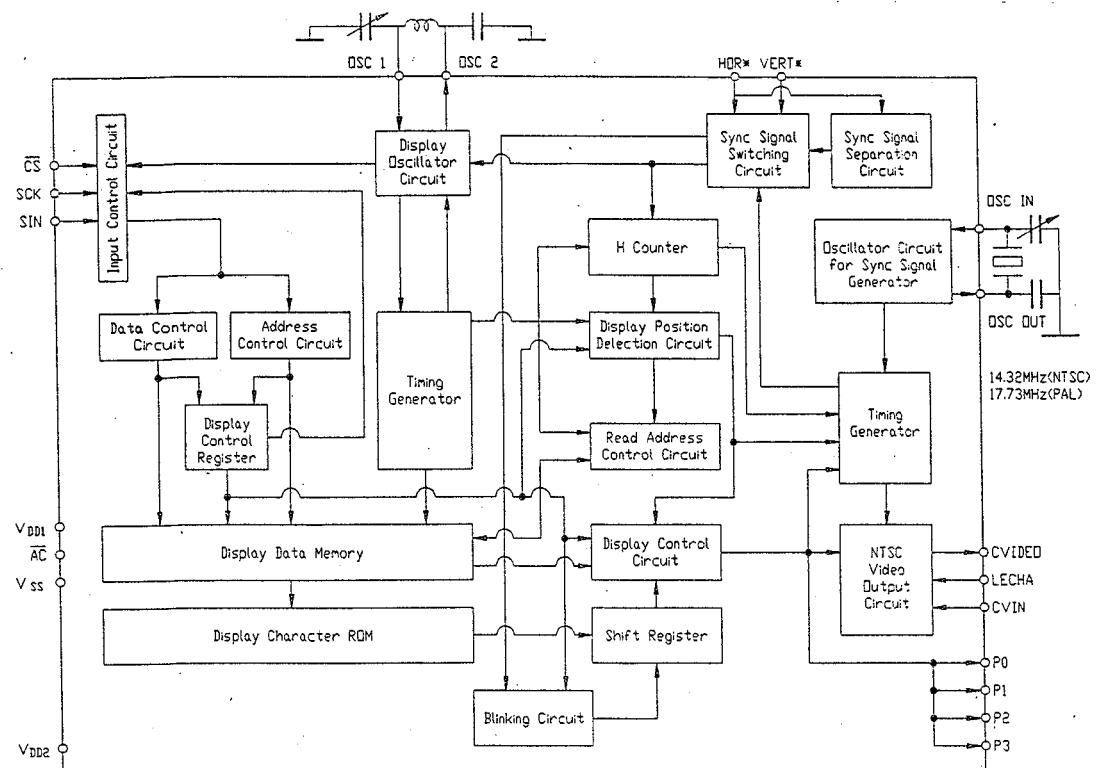
(b) With blue background, but no picture received.

- i) Check tuner IF input.
- ii) Check Video circuit.

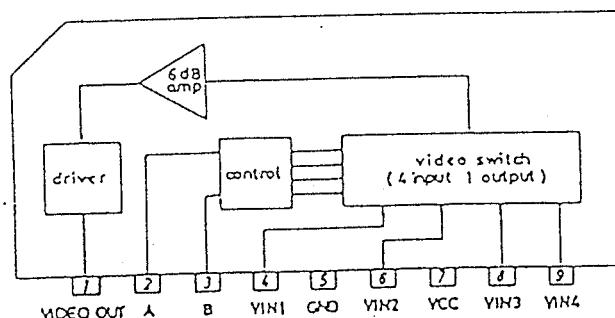
(3) No sound output or noisy sound

(a) Check Audio circuit.

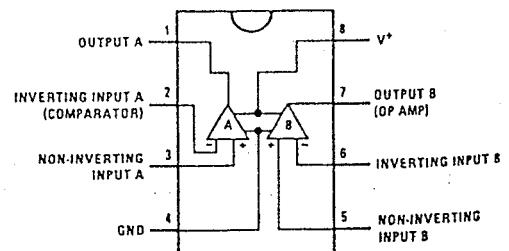
BLOCK DIAGRAM



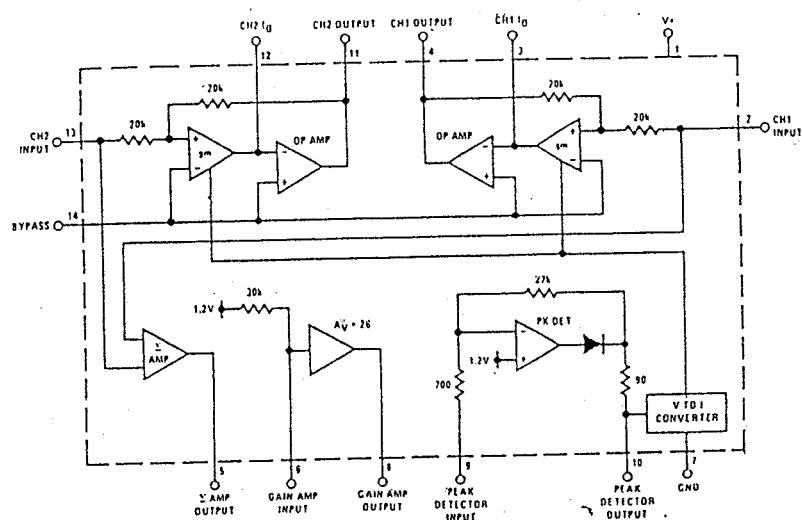
M35011-001SP



LA7952



LM392



LM1894

6) Audio IF adjustment

A) IFT301 for mono (10.7MHz)

- a) Set the sweep marker generator to 10.7MHz +/-50KHz
- b) Connect the sweep marker generator output to U301 pin 21 through a 1000pF cap
- c) Connect the wide screen monitor Y input to U301 pin 8
- d) Adjust IFT301 to make the 10.7MHz marker on the center

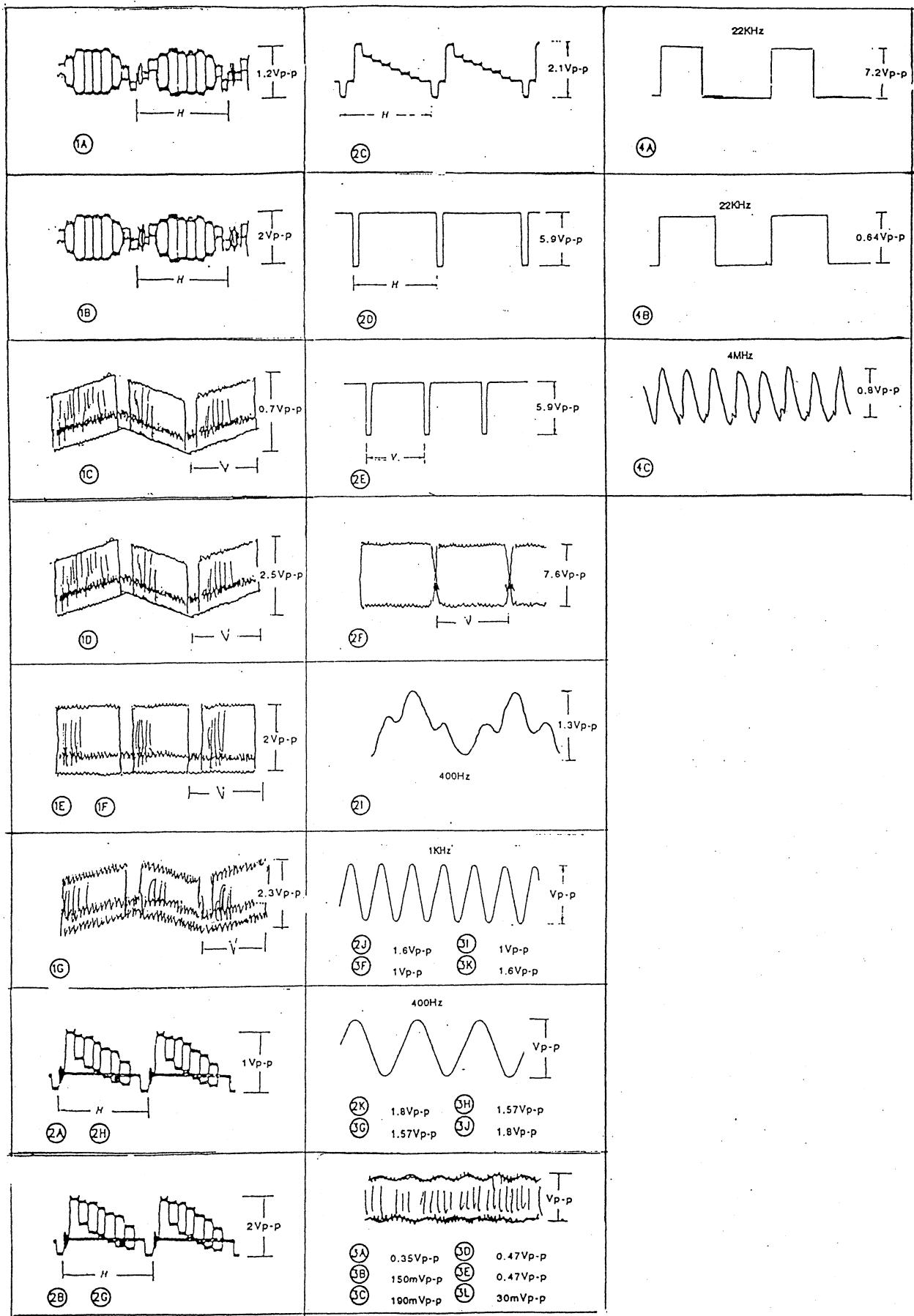
B) IFT 303 for stereo (10.7MHz)

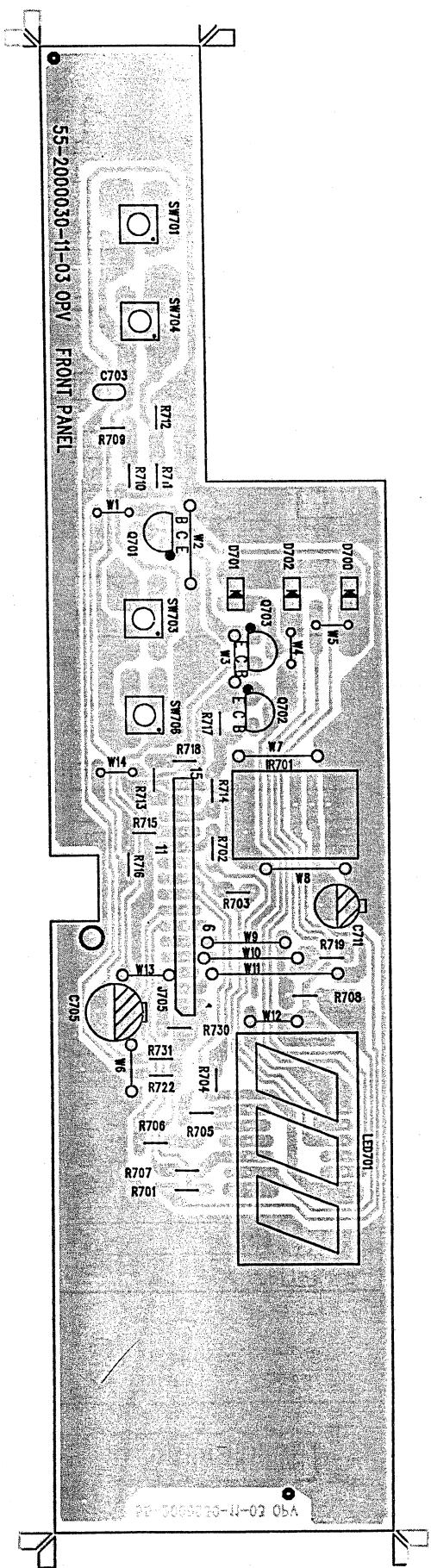
- a) same as (A)
- b) Connect the sweep marker gen. output to U301 pin 22 through a 1000pF cap
- c) Connect the monitor Y input to U303 pin 14
- d) Adjust IFT303 to make the 10.7MHz marker on the center

C) IFT 302 for stereo (10.52MHz)

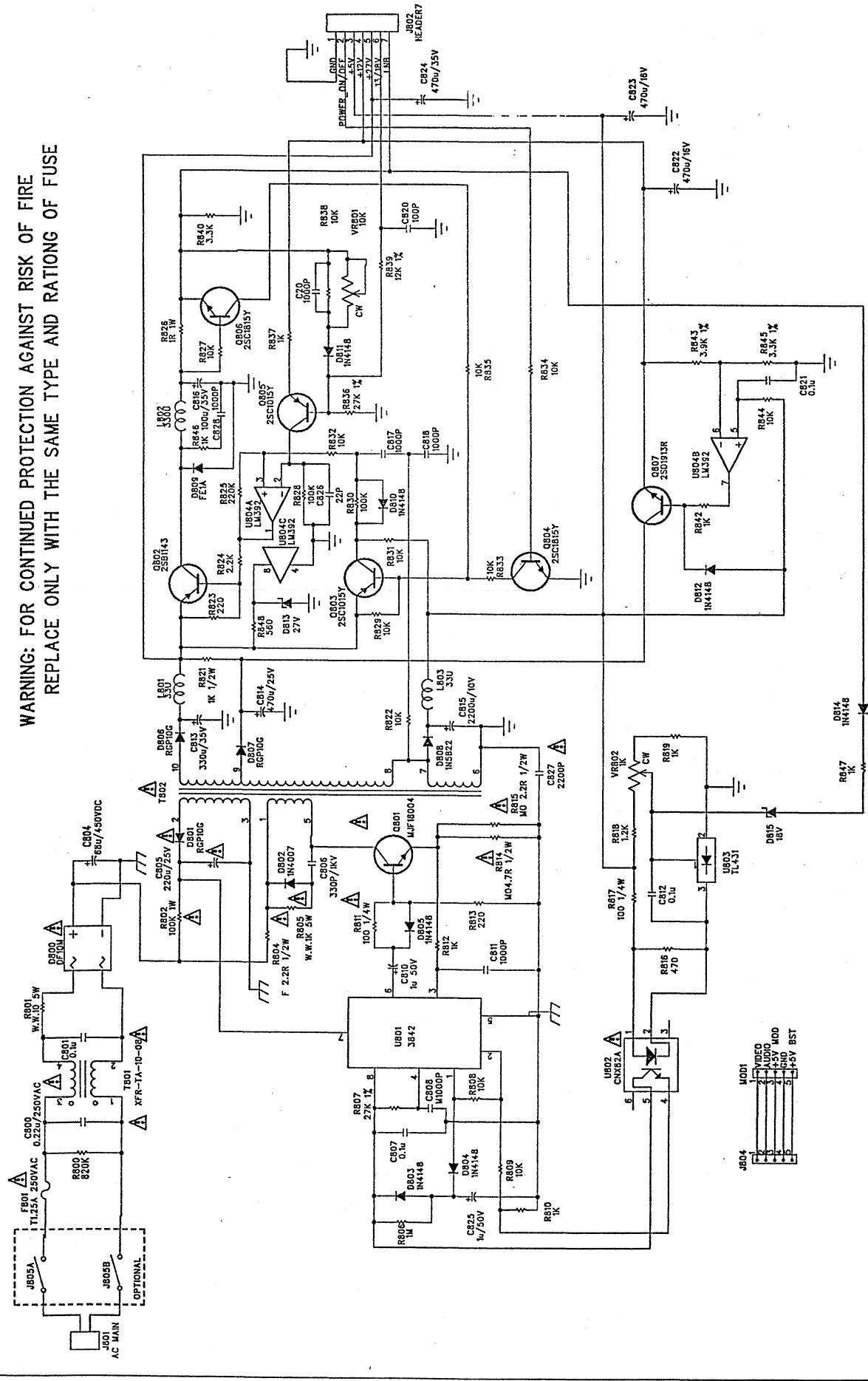
- a) Set the sweep marker generator to 10.52MHz +/-50KHz
- b) same as (B)
- c) Connect the monitor Y input to U302 pin 11
- d) Adjust IFT302 to make the 10.52MHz marker on the center

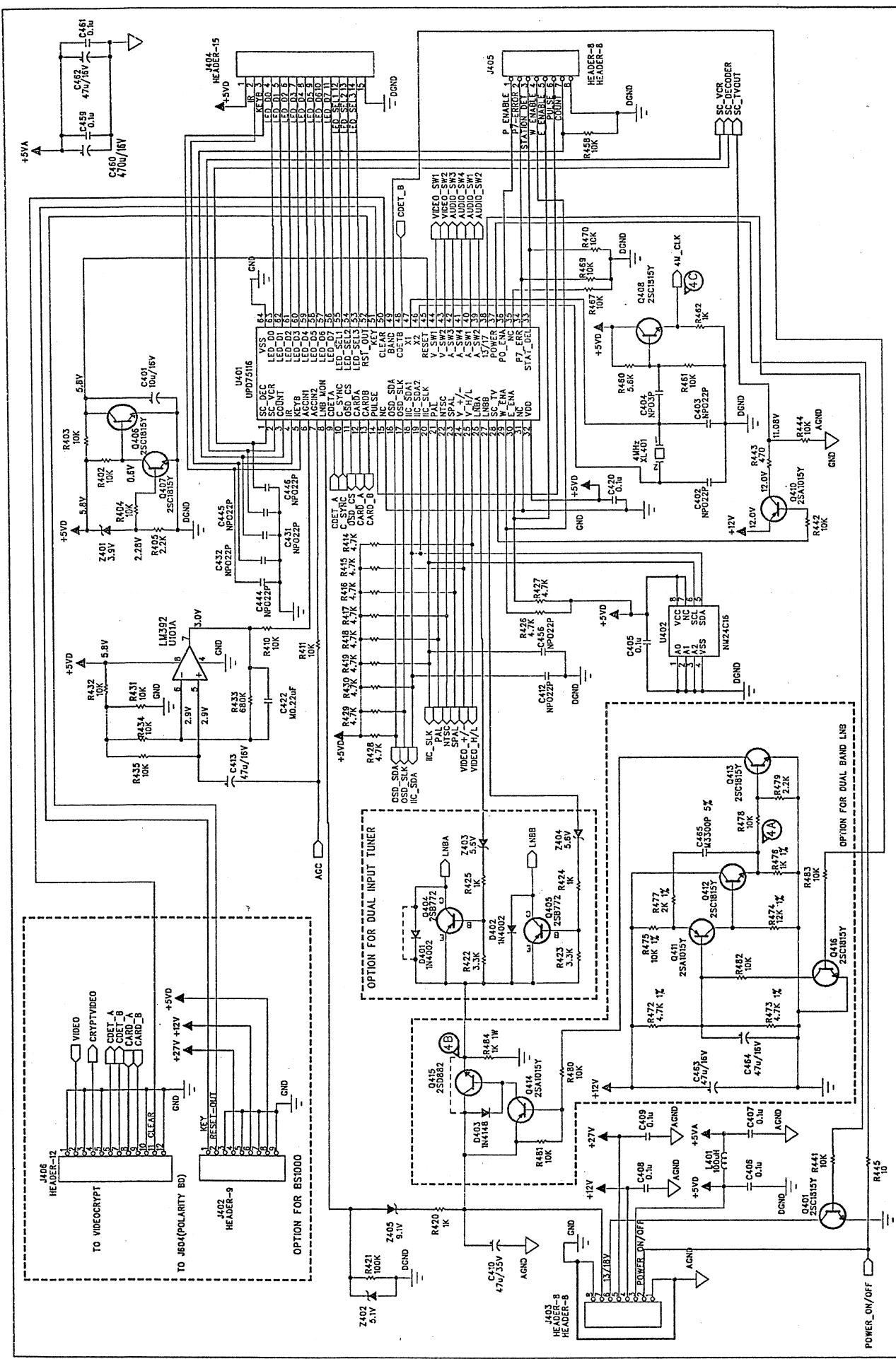
WAVE FORM DIAGRAM

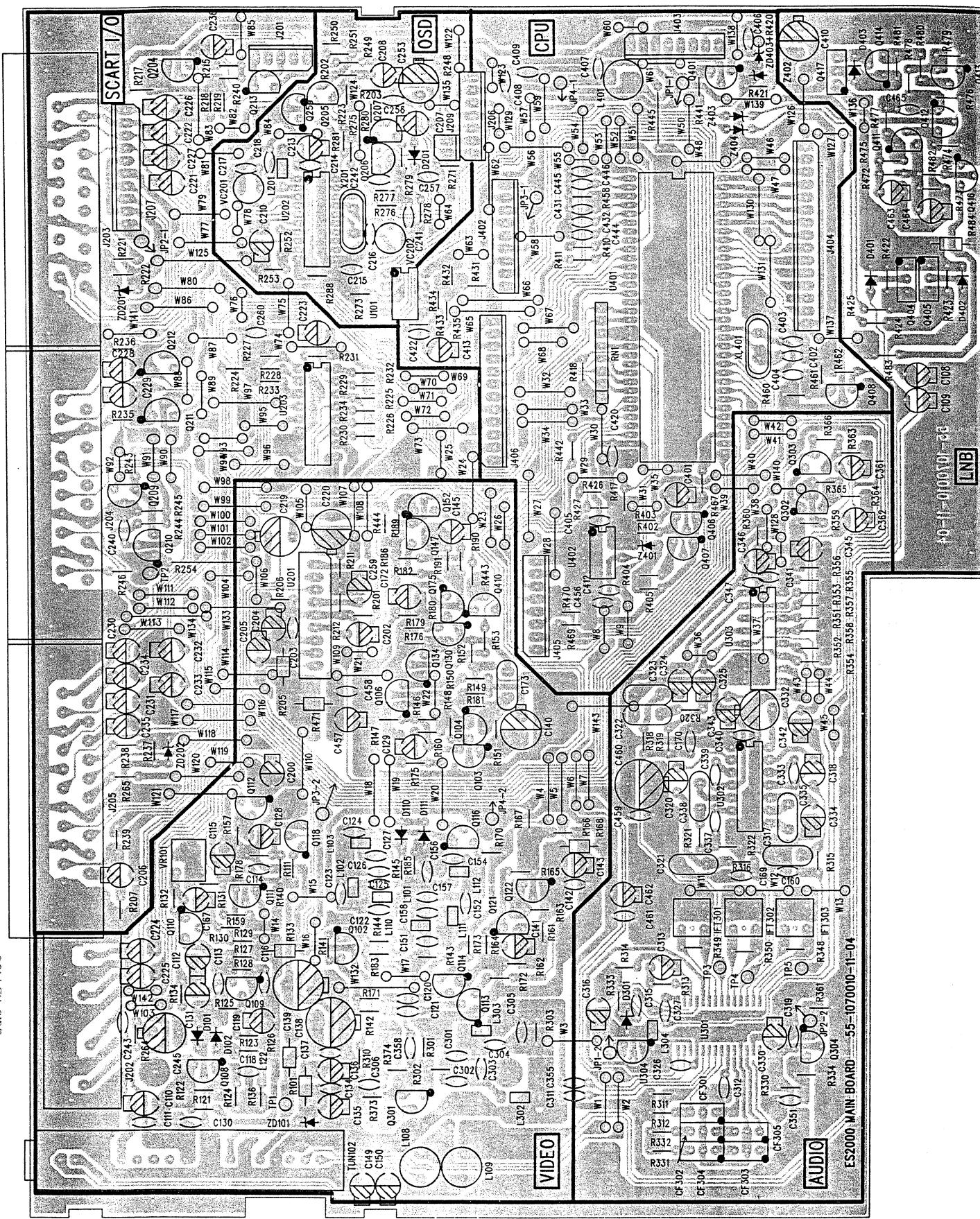


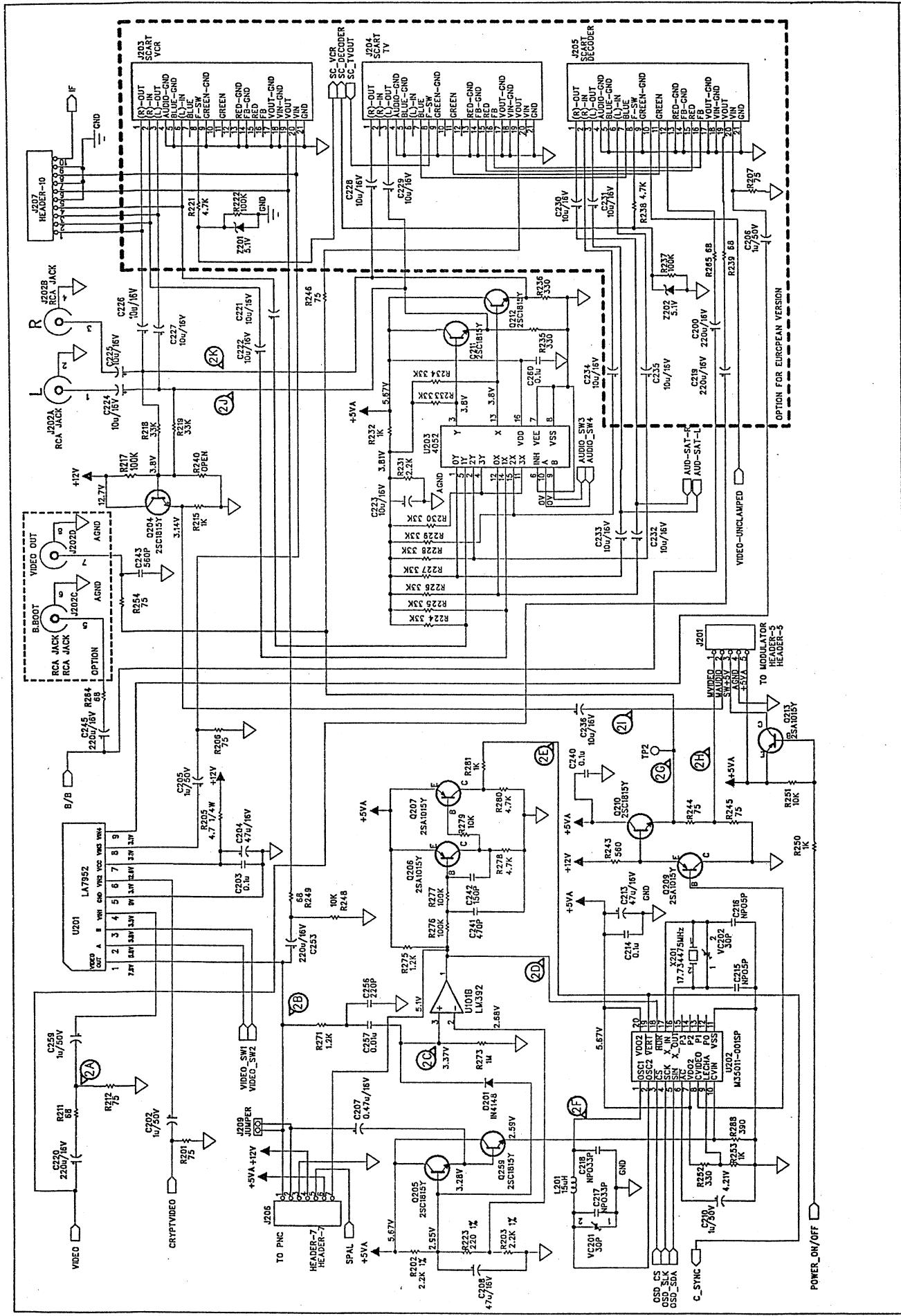


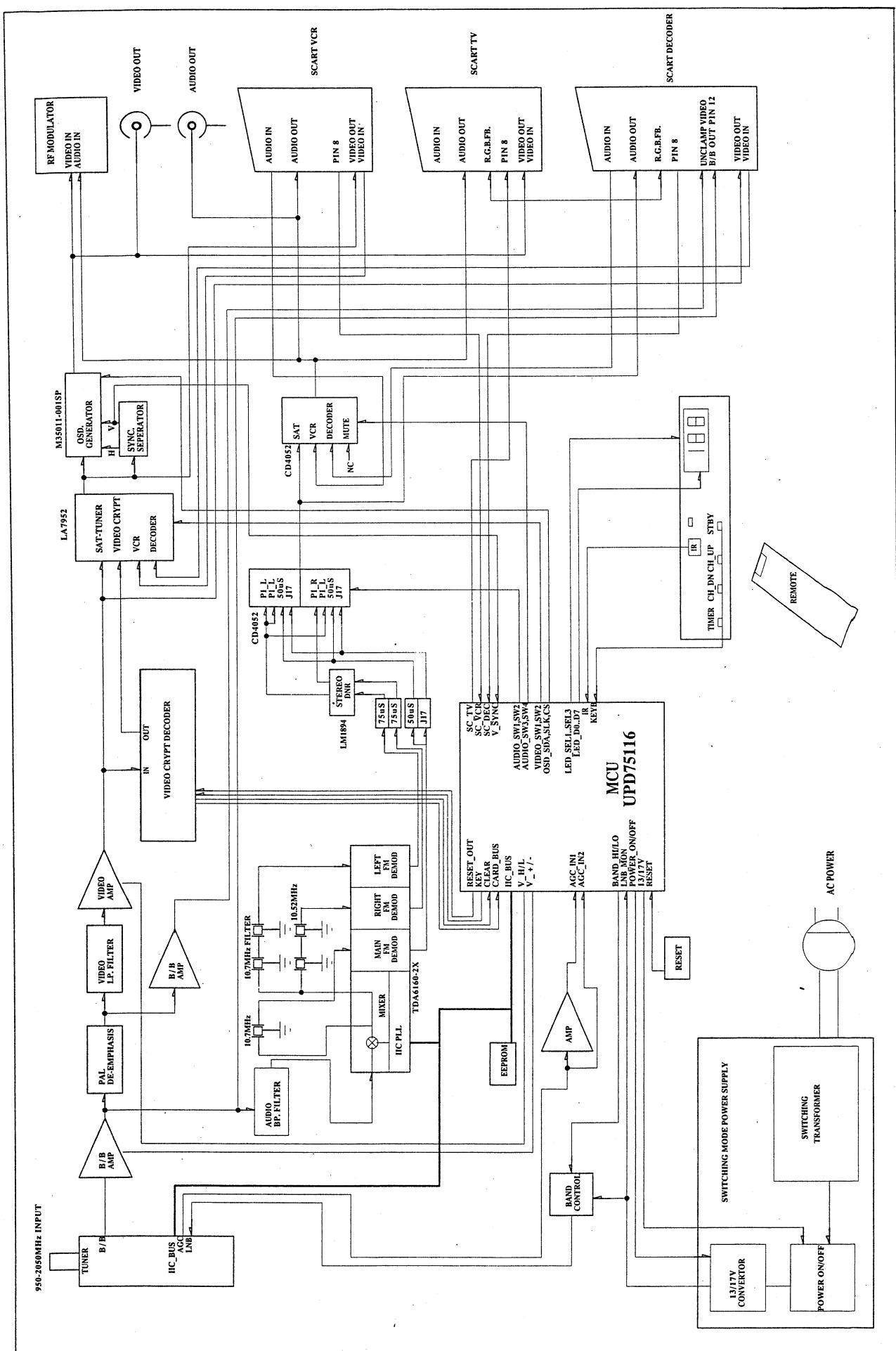
**WARNING: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE
REPLACE ONLY WITH THE SAME TYPE AND RATING OF FUSE**











6) Video amplifier and gain selection

The Video amplifier makes the Video output level 2Vp-p. The gain of the amplifier can be controlled by the CPU via Q106 and R150.

7) Clamp circuit and 75 ohm driver

The dispersal signal of triangular wave synchronizing the field frequency is superposed on the demodulated signal for preventing the energy concentration of satellite signal. The dispersal frequency is 25 Hz with PAL and 30 Hz with NTSC. The dispersal is rejected by clamp circuit which is Q134, Q130, C173. The type of this circuit is sync tip clamp. The 75 ohm driver Q147, Q152 drive the decoder SCART video output into 75 ohm load.

8) Video source selector

There are four video sources in this receiver, they are 1) Satellite video, 2) Encrypted video(option), 3) VCR video, 4) Decoder video. The video output signal of SCART TV and RCA jack is one of the four video sources which is selected by CPU via U201.

9) Hor/Ver synchronization signals detection

The horizontal synchronization pulse is separated by U101 voltage comparator, it used to synchronize the OSD generator. The vertical pulse is detected by a integration circuit which is R276, C241. Transistor Q206 and Q207 are used to wave shaping, The CPU will used the pulse to identify the video signal and PAL/NTSC system.

10) OSD generator

The OSD is generated by U202 which is PAL color system, the PAL color sub carrier 4.433619 MHz is generated from the crystal oscillator 17.734475 MHz and divided by four. The horizontal and vertical pulse inputs synchronize the OSD with the input video signal. The dot clock generator L201, C217, C218 controlled the width of the OSD.

C) AUDIO CIRCUIT.

1) Audio bandpass filter

This bandpass filter is used to reject the video signal, it consists of trap filter section L302, C302, C303, C301 and a lowpass filter section L303, C305.

2) Audio channel selection circuit

The audio sub carrier will be converted to a IF frequency 10.7 MHz, it is done by a PLL frequency synthesizer and a IF mixer which is U301. The PLL frequency can be controlled by the CPU via IIC bus (U301) pin 27 28.

3) Audio FM demodulator circuit

The IF signal 10.7 MHz is provided to the three FM demodulator though the three bandpass filter (1) CF304 & CF303, (2) CF302 & CF 305, (3) CF301, filter (1) and (2) are 150 KHz for the stereo pair, the filter (3) is 280 KHz for the mono audio. The IF signal will be demodulated by the three FM demodulator which is inside the U301.]

4) Audio de-emphasis circuit

The stereo audio is 75uS decompasised by R315, C317 and R316, C321 and provided to the DNR circuit.

The mono audio has two dc emphasis circuit, they are R318, C323 (50uS) and R319, R320, C322 (J17).

| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|------------------|-------------------------------------|------|
| 1 | 13-0300803-04-00 | SELF TAPPING SCREW Ø3x8mm BA TYPE | 4 |
| 2 | 10-0070013-01-00 | TOP CABINET | 1 |
| 3 | 13-0301000-02-00 | SELF TAPPING SCREW Ø3x10mm PA TYPE | 15 |
| 4 | 80-0000707-00-00 | MAIN BOARD | 1 |
| 5 | 80-0000707-00-01 | POWER SUPPLY BOARD | 1 |
| 6 | 80-0000707-00-02 | FRONT PANEL BOARD | 1 |
| 7 | 10-0070072-71-10 | TIMER KNOB | 1 |
| 8 | 10-0070062-71-20 | CHANNEL KNOB | 1 |
| 9 | 10-0070082-71-10 | STANDY KNOB | 1 |
| 10 | 10-0070030-71-10 | FRONT PANEL | 1 |
| 11 | 10-0070057-71-00 | BLANK PLATE | 1 |
| 12 | 10-0070041-04-10 | FRONT DISPLAY LENS | 1 |
| 13 | 10-0070024-01-00 | BOTTOM CABINET | 1 |
| 14 | 17-0981280-04-22 | FOOTPAD | 4 |
| 15 | 62-9007003-30-07 | BLANK LABEL | 1 |
| 16 | 17-1181270-40-21 | BUSHING | 1 |
| 17 | 36-2213110-08-17 | POWER CORD | 1 |
| 18 | 13-0301004-04-00 | SELF TAPPING SCREW Ø3x10mm KA TYPE | 4 |
| 19 | 62-7200001-00-00 | BACK LABEL | 1 |
| 20 | 19-0070013-23-10 | REMOTE CONTROL OVERLAY | 1 |
| 21 | 10-0070143-01-10 | REMOTE CONTROL TOP CABINET | 1 |
| 22 | 18-0070036-12-00 | RUBBER KEY PAD | 1 |
| 23 | 13-0260600-02-00 | SELF TAPPING SCREW Ø2.6x6mm PA TYPE | 2 |
| 24 | 10-0070171-03-00 | REMOTE CONTROL LENS | 1 |
| 25 | 55-1070040-31-04 | REMOTE CONTROL P.C.B. | 1 |
| 26 | 13-0260600-24-00 | SELF TAPPING SCREW Ø2.6x6mm PB TYPE | 1 |
| 27 | 10-0070154-01-00 | REMOTE CONTROL BOTTOM CABINET | 1 |
| 28 | 12-0070240-70-00 | SPONGE | 1 |
| 29 | 11-0070137-20-00 | BATTERY CONTACT (+/-) PLATE | 1 |
| 30 | 13-0200500-24-00 | SELF TAPPING SCREW Ø2x5mm PB TYPE | 1 |
| 31 | 10-0070161-01-00 | REMOTE CONTROL BATTERY DOOR | 1 |
| 32 | 11-0070127-20-00 | BATTERY CONTACT (+) PLATE | 1 |
| 33 | 11-0070117-20-00 | BATTERY CONTACT (-) PLATE | 1 |